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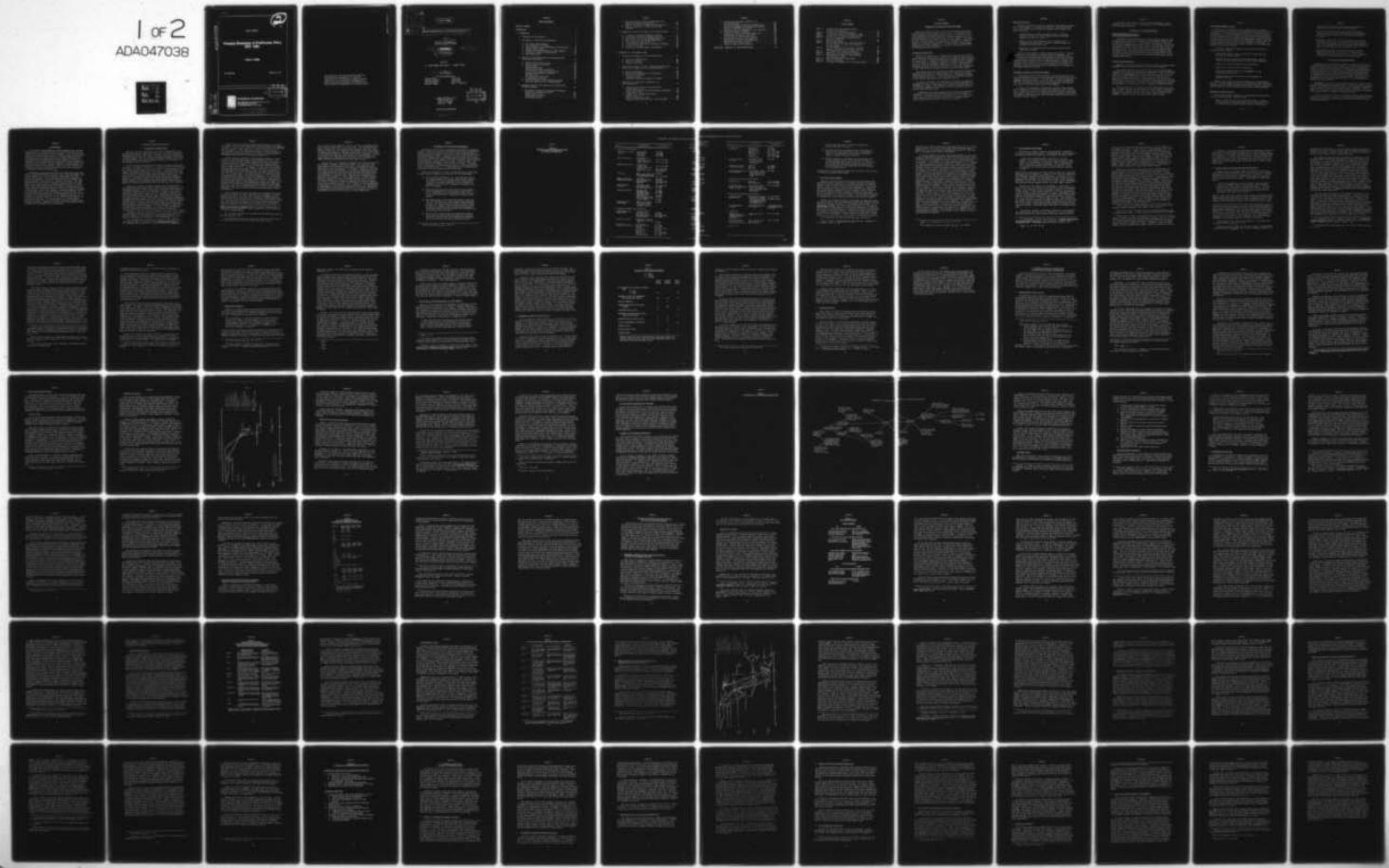
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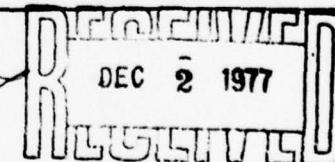
Changing Dimensions of Proliferation Policy 1975 - 1995

LEWIS A. DUNN

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U.S. ARMS CONTROL AND DISARMAMENT AGENCY (ACDA)

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Table of Contents

EXECUTIVE SUMMARY	v
INTRODUCTION	1
I. INTRODUCTION	2
1. Prospects for Proliferation	2
2. The Dangers of Proliferation Reexamined	5
a. The "Statistical Argument"	7
b. The Irresponsibility Charge	9
c. Nuclearization of Existing Regional Confrontations . .	11
d. Nuclear Border Defense	15
e. Erosion of State Sovereignty vs. Other Dangers	17
f. Differential Impact of Proliferation	18
g. Some Complications	21
3. Reinforcing Constraints Against and Disincentives to Nuclear Proliferation	23
a. Nuclear-Exports Policy Issues	23
b. Sanctions upon Proliferation	27
Current Status.	27
Purpose of Sanctions	28
Some Potential Risks of Sanctions	30
An Illustrative Sanctions Decision-Tree	33
Automatic and Presumptive Sanctions	33
Available Levers	35
The Legitimacy of Sanctions	36
c. A Comprehensive Test Ban	37
d. Focusing Prospective Proliferators Attention upon the Internal Risks of "Going Nuclear"	41
4. Decreasing Pressures and Incentives for Acquisition of Nuclear Weapons	45
a. Superpower Strategic Postures and Proliferation: The No-First-Use Debate and SALT	45
Blanket No-First-Use	46
Limited Nuclear Non-Use	54
An Afterward on SALT	57

b. American Alliances, Security Guarantees, and Checking Widespread Proliferation	59
c. Reducing the Risk of "Preemptive Proliferation"	64
d. Checking the Growth of Status and Prestige Pressures	66
 5. Responding to Near-Term Dramatic Proliferation Events	71
a. A Clear-Cut Safeguards Agreement Violation	71
b. An Ambiguous Safeguards Agreement Violation	72
c. Next Overt Entry into the Nuclear-Weapon Club	73
d. Covert Entry into the Nuclear-Weapon Club	75
e. First Withdrawal from the NPT	75
f. A "Gray Market" Government-to-Government Exchange	76
g. Violation of the NPT	77
h. First Use of Nuclear Weapons since Nagasaki	78
 II. MANAGING IN A PROLIFERATED WORLD	
1. Dimensions of Managing in a Proliferated World	81
a. Which Proliferated World?	81
b. Aspects of Stability	85
c. Tensions and Choices	85
2. Proscribing Nuclear First-Use: Aspects and Limitations of One Code of Behavior for a Proliferated World	89
a. Mode of Enforcement	89
b. Who Would be Responsible for Enforcement?	90
c. Feasibility Conditions	91
Pre-Dramatic Shock	91
Beyond the "Business-as-Usual" Environment	95
3. Components of a Strategy for Managing in a Proliferated World	97
a. Influencing the Technical Characteristics of New Nuclear Forces	97
Benefits and Costs of Providing Technical Assistance . .	97
A Question of Timing	99
b. Attempting to Influence Nth Country	
Strategic Doctrine	99
What is Desirable Doctrine?	100
Promoting "Desirable" Doctrine: Can It Be Done? . . .	101

c. Contributing to Regional Stability in a Proliferated World	104
Providing Surrogate Second-Strike Capabilities	104
American Disengagement from Nuclearized Regions?	106
Support for Regional Arms Control	107
d. Superpower Rules of Engagement in Local Conflicts	108
e. Controlling Nuclear Terrorism	110
Dimensions of Terrorist Nuclear-Weapon Use	110
No-Safe-Haven for Nuclear Terrorists	112
f. Implications for American Force Posture	113
Non-Nuclear Precision Strike Capability	113
Damage-Limiting Systems and Capabilities	114
Real-Time Surveillance Systems	116
g. Towards a Code of Nuclear Behavior	116
CONCLUSION: MANAGING IN A PROLIFERATING WORLD	119

List of Tables

Table 1:	Projection of the Problems and Risks of Future Proliferation	6
Table 2:	Salience of Proliferation Problems	19
Table 3:	Limited, But Steady, Proliferation to 1995	29
Table 4:	Illustrative U.S. Sanctions Decision-Tree	34
Table 5:	Military Interventions in Potential Nth Countries, 1958-1976.	42
Table 6:	No-First-Use Issues	47
Table 7:	Selected Non-NPT Parties: Possible Pressures for and Triggers to a Decision to Acquire Nuclear Weapons	55
Table 8:	Critical Potential Nth Countries: Possible Reasons, Constraints, and Triggering Events	58
Table 9:	Late 1980s--Early 1990s Proliferation	60
Table 10:	Elements of a Non-Proliferation Strategy	70
Table 11:	Widespread, Multi-Regional, Chain Reaction Proliferation to 1995	82
Table 12:	Some Nuclear-Weapon-Program Types	84
Table 13:	Stability Conditions	86
Table 14:	A Strategy for Managing in a Proliferated World	118

Executive Summary

Components of a Non-Proliferation Strategy

Much recent non-proliferation activity has concerned itself with tightening controls over nuclear exports in order to increase the technical constraints upon prospective proliferators. Such efforts need to be complemented by others designed to increase disincentives to and decrease incentives for the acquisition of nuclear weapons. The importance of influencing both types of political calculation is underscored as much by the difficulties in preventing the spread of the technical capability to launch an indigenous, if crude and small, nuclear-weapon program as by the grave dangers for virtually all countries of life in an increasingly proliferated world.

Increasing Disincentives

Particularly important for increasing proliferation disincentives is the design and enunciation of a sanctions strategy building upon such prior initiatives as former President Ford's October 28, 1976, statement on nuclear policy. Intended to influence the actions of key "onlookers," as well as those of the country sanctioned, sanctions might be imposed after any one of the following triggering activities: a safeguards agreement violation; withdrawal from the NPT; a gray market transaction; or even legal activities directed towards acquiring nuclear weapons.

One possible sanctions strategy would combine a clearly articulated readiness automatically to impose sanctions for violation of a legal obligation and creation of a strong expectation of sanctions following other triggering activities. This would comprise a flexible balancing of the risks of sanctions and their expected benefits.

A range of unilateral, but preferably multilateral, technological, economic, political, security, and nuclear-program sanctions might be threatened or invoked. More important, virtually all of the most critical near-term prospective proliferators would be vulnerable to one or more of these available levers.

A Comprehensive Test Ban agreement would reinforce such sanctions' credibility. Not only would adherence demonstrate a seriousness of opposition to widespread nuclear proliferation, but with a CTB a sanctions' triggering event probably would meet with indignant domestic public and political outcries for sanctions' imposition.

Reducing Incentives

Reducing proliferation incentives represents the necessary counterpart to such attempts to increase disincentives. Among the measures that a multifaceted non-proliferation strategy might encompass, the most critical are:

- tempering American nuclear declaratory policy, including a pledge of non-use of nuclear weapons against non-nuclear-weapon states party to the NPT;
- efforts to win new NPT adherents and to strengthen the safeguards-sanctions system in order to reduce pressures for "preemptive proliferation"; and
- preserving or strengthening existing American security guarantees and alliances.

Design of a multifaceted strategy imposes hard choices. Potential tensions exist both between its specific possible components--e.g., articulation of a limited nuclear non-use policy could clash with the preservation of existing alliance relationships--and between particular non-proliferation measures and other American domestic, foreign, and national security objectives--e.g., preserving existing alliance relationships in East Asia may clash with the objective of withdrawal of American troops from South Korea and of normalization of relations with the People's Republic of China.

Responses to Dramatic Proliferation Events

Thinking about future non-proliferation strategy should not overlook the possible occurrence over the next three to five years of various dramatic proliferation events. These include: a clear-cut safeguards agreement violation; the next overt entry into the nuclear-weapon club; the first NPT withdrawal; an act of "gray marketeering"; and, perhaps even, the first use of nuclear weapons since Nagasaki.

If met by an inadequate or inappropriate response, these dramatic events probably would increase markedly the scope and pace of proliferation. Conversely, the "crisis climate" associated with their occurrence may provide an opportunity for implementing more fundamental non-proliferation measures and reforms than would have been feasible within the prior "business as usual" climate.

Successful manipulation for non-proliferation purposes of such dramatic events would require in many cases prior contingency planning and intelligence-gathering.

Managing in a Proliferated World

Non-Proliferation Policies as a Proliferation-Management Tactic

Some observers have been arguing that more attention should be paid to the design of strategy for managing in a proliferated world and less to non-proliferation policies. Such arguments overlook the fact that significantly different "proliferated worlds" could emerge. Posing varying degrees of threat, these "worlds" would be distinguished by the number of states that had "gone nuclear" and the types of nuclear-weapon programs pursued. Thus, non-proliferation policies designed to reduce the number of new proliferators and to constrain their technical capabilities for going beyond acquisition of small non-operational "in the business" prestige forces may be the most important near-term proliferation-management tactic.

A Code of Nuclear Behavior

Managing in a world of widespread nuclear proliferation might require agreement upon and implementation of a code of nuclear behavior.

One possible code would proscribe the first use of nuclear weapons regardless of how grave the provocation; modern-day versions of banishment, outlawry, and lex talionis would serve to enforce it. As for that final threat of equal and proportional nuclear retaliation against the first-user--the ultimate enforcement--in theory either or both the United States or the Soviet Union would be responsible for carrying-out directly the "talionic" reprisal or for providing the attacked party with the means of retaliating; in practice, at least initially the superpowers probably would respond only to attacks upon their respective friends and allies.

The varied obstacles to agreement upon and implementation of such a code of nuclear behavior can be enumerated at great length. Nonetheless, after a future dramatic systemic shock, e.g., one or more local nuclear exchanges, the "business as usual" environment might be shattered and agreement viewed as the only alternative to spreading anarchy.

Less Global Management Tactics

Barring such a fundamental reform of global political behavior, less global tactics for managing in a proliferated world would have to be relied upon. In addition to continued efforts to influence "which proliferated world" ultimately emerged--in particular by trying to keep as many new proliferators as possible satisfied with small non-operational "in the business" prestige programs lest many acquire "serious" but technically deficient forces--a proliferation management strategy might seek to foster more stable Nth country nuclear postures, to contribute to regional stability, and to devise ways to circumscribe the global repercussions of local proliferation.

In pursuit of these three aspects of stability, the following measures could be adopted:

- eventual assistance to new Nth countries in developing safe and reliable nuclear forces;
- creation of local equivalents of the NATO Nuclear Planning Group to facilitate assimilation of past "nuclear learning";
- provision of surrogate second-strike capabilities;
- support for local arms control initiatives;
- superpower agreement upon rules of engagement in local nuclearized conflicts; and
- implementation of the principle of "no-safe-haven" for nuclear terrorists

However, what stands out following evaluation of such management tactics is the gap between the gravity of the problems within a proliferated world and the limited confidence with which it could be claimed that specific measures would be both politically feasible and/or effective.

Questions for American Policy

For the United States, managing in a proliferated world would pose a series of hard questions. Among them are:

- Should the United States assist new proliferators in developing more stable and reliable nuclear forces, reducing the risk of inadvertent or unauthorized local use but at the expense

of possibly encouraging proliferation and providing these countries with more militarily effective forces?

--In which newly nuclearized regions would vital American interests exist and in which would prudence dictate putting political distance between the United States and new proliferators?

--Assuming as a basic principle the desirability of reducing the direct threat that future new proliferators could pose to the American homeland, should the United States eventually invest in new damage-limiting systems even at the expense of complicating Soviet-American arms control? and

--To what degree or under what conditions might it become legitimate to restrict the scope of civil liberties to protect against nuclear terrorism or the risk of clandestine insertion of nuclear weapons into the United States?

Living in a Proliferating World

Among the purposes of limited contingency planning for managing in a proliferated world, two warrant emphasis. On the one hand, such planning, by revealing the difficulties and complexities of managing proliferation, makes clear the necessity of strengthened non-proliferation efforts; on the other, by suggesting the continuing importance of non-proliferation activities even in the context of growing proliferation, it cautions against disillusionment and a collapse of morale by non-proliferation forces should more countries decide to "go nuclear." To go beyond such limited contingency planning for a proliferated world, however, would be premature.

Nonetheless, it is not too soon to begin thinking in terms of living in a proliferating world, one characterized by the spread at least of rudimentary nuclear-weapon mobilization bases, by reliance upon a safeguards-sanctions system to assure that peaceful nuclear technology is not misused, by the prospective growth of proliferation incentives and pressures, and by the occurrence of dramatic proliferation events.

Living in this world will entail, among other things, non-proliferation policies designed to influence proliferation disincentives and incentives and a readiness to manipulate near-term dramatic events for non-proliferation purposes.

Introduction

In the nearly three years since India's detonation of a nuclear-explosive device, increasing attention has focused upon policies for retarding the future spread of nuclear weapons. Part I of this report, after briefly sketching the reasons for believing that additional proliferation could occur and reviewing the probable dangers of a more proliferated world, examines such policies. Means of reinforcing technical constraints upon prospective proliferators and measures for influencing their disincentives and incentives for "going nuclear" are identified and evaluated. Possible responses to future dramatic proliferation events or turning-points, events that could influence significantly the scope, pace, and characteristics of possible future proliferation, also are discussed.

Nonetheless, given the varied factors discussed below that could result in more widespread proliferation, some limited contingency planning for managing in a proliferated world would appear justified. Part II of this report, thus, comprises a preliminary assessment of policies for managing in a more proliferated world and perhaps reducing the problems it would pose for virtually all nations. This Part begins by setting out a policy framework, emphasizing both the importance of prior and continuing non-proliferation activities in determining "which among several possible alternative proliferated worlds" might emerge and the tensions inherent within any strategy for managing in such a world. Within that framework, a possible comprehensive code of nuclear behavior for a proliferated world is analyzed next. The discussion then focuses upon more limited management policies designed to foster more stable Nth country nuclear forces and postures, to contribute to regional stability, and to circumscribe the global risks of local proliferation. This latter analysis, in delineating the difficulties of devising a high-confidence strategy for managing widespread proliferation, suggests by implication the importance of efforts to reduce the likelihood of such proliferation.

I. RETARDING NUCLEAR PROLIFERATION

1. Prospects for Proliferation

More than two years have passed since India's detonation of a nuclear explosive device in May 1974. Since then, an initial complacency regarding the potential significance of India's action has given way to increasing concern about the prospects for more widespread proliferation of nuclear weapons. Nor is that concern unfounded. Rather, each of the following factors could erode the present equilibrium of pressures for and constraints upon proliferation.

First, the continued spread of civilian nuclear power reactors and technology, including in some instances "sensitive" plutonium reprocessing and uranium enrichment facilities, is providing a growing number of countries with a nuclear-weapon "mobilization base." By the mid-1980s, for example, approximately 35 countries are likely to have sufficient plutonium for fabricating several dozen nuclear weapons--assuming their technical capacity to separate that plutonium from spent fuel elements.* Moreover, in themselves, International Atomic Energy Agency safeguards against diversion of that material and current promises not to make nuclear weapons provide inadequate protection against a possible future decision to "nationalize" the facilities and "throw out" the inspectors.

Second, even assuming a gradual tightening of existing controls over legitimate nuclear-power exports, nuclear "gray marketeering," i.e., unregulated dealings in nuclear facilities, technology, fuel, personnel, and nuclear-weapon materials and "know-how," if not even the weapons themselves, could come to characterize the late-1980s. Precursors of such "gray marketeering" already may exist, ranging from possible past semi-official covert West German assistance to South Africa's uranium enrichment program to reports that some of the approximately 200 Western European nuclear engineers cognizant of plutonium reprocessing technology are "consulting" for various less developed countries. Should a "gray market" emerge, a "sophisticated" civilian nuclear power program and a well-developed nuclear infrastructure would no longer be a precondition for acquisition of nuclear weapons. As a result, both the scope and pace of proliferation could be expected to increase accordingly.**

* Statement of Fred C. Iklé, former Director, U.S. Arms Control and Disarmament Agency, before the Subcommittee on International Security and Scientific Affairs of the Committee on International Relations, U.S. House of Representatives, November 5, 1975 (Mimeoed), pp. 3-4.

** For an elaboration of this point, see Lewis A. Dunn, "Nuclear 'Gray Marketeering'" to be published in International Security, Vol. 1, No. 3 (Winter 1976-77), and Lewis A. Dunn and Herman Kahn, Trends in

Third, within the so-called "nuclear-threshold states," including, for example, Israel, Taiwan, South Korea, India, Pakistan, Iran, Argentina, and Brazil, pressures and incentives for overt acquisition of nuclear weapons are emerging. More importantly, they could intensify within the next years, partly due to possible changes in present American foreign and military policies and partly as a result of various domestic developments and continuing intra-regional competition.*

Fourth, should a second wave of proliferation commence, it could become a self-reinforcing process, growing geometrically over time. On the one hand, given the linkages among many potential proliferators, a decision by certain countries to launch a nuclear-weapon program could be expected to trigger a chain of additional proliferation decisions by other countries.** For example, an Indian decision to deploy a nuclear force might have such an effect, setting off a proliferation chain encompassing first Pakistan and Iran, next the Arab countries of the Middle East and Israel, and eventually even Brazil and then Argentina. On the other hand, if an increasing number of countries decide to develop nuclear weapons, proliferation momentum, i.e., belief that the Non-Proliferation Treaty system was collapsing and that widespread proliferation was becoming inevitable, would increase. Consequently, the more extreme forms of "gray marketeering" such as the barter of fissile material and design information would become more widespread, pressures to proliferate preemptively against potential regional opponents would grow, and the "fashionableness" of "going nuclear" would be heightened. Each would increase further the scope and pace of future proliferation.

Fifth, although sufficient time remains to strengthen the non-proliferation regime and to reduce significantly the probability of widespread proliferation, it is far from clear that the needed policies--assuming they can be identified--will be adopted. Notwithstanding publicly reported recent American readiness to pressure South Korea, Taiwan, Iran, and Pakistan not to acquire "sensitive" plutonium reprocessing facilities, how much the United States ultimately will be willing to

Nuclear Proliferation, 1975-1995 (Hudson Institute, HI-2336/3-RR, May 15, 1976), pp. 15-17, 42-45, 59-62. Report prepared for the U.S. Arms Control and Disarmament Agency.

* For a complete discussion of pressures for proliferation, see Dunn and Kahn, op. cit., Part I.

** On alternative proliferation chains and projected possible routes to a proliferated world, see Dunn and Kahn, op. cit., Part II.

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pay in terms of other commercial, foreign, military, and domestic policies to retard proliferation is not yet clear. As for the countries of Western Europe, calls for nuclear-supplier restraint have until quite recently clashed with their apparent unwillingness to sacrifice pursuit of commercial advantage, a reluctance perhaps partly due to their belief that proliferation would be a problem only for the superpowers. Finally, in the wake of the marginal Soviet response to India's nuclear test, Soviet readiness to subordinate pursuit of political advantage to a common non-proliferation goal must be questioned as well.

The possibility of increasingly widespread proliferation during the next decades, therefore, cannot be dismissed. This section of the report examines and evaluates various ways in which American policy might seek to use constructively that time which remains to reduce the likelihood of such proliferation. In so doing, it emphasizes the need for a multifaceted non-proliferation strategy combining varied means of increasing technical constraints upon potential proliferators with others designed to influence their incentives and disincentives for acquiring nuclear weapons. It also suggests that if limited domestic political, bureaucratic, and intellectual capital--as well as scarce diplomatic resources and sources of leverage--are not to be wasted, it is equally important to determine which non-proliferation measures should be pursued most actively. First, however, a brief reexamination of the dangers of a proliferated world is warranted. An understanding of those dangers both provides a background to this part's evaluation of alternative non-proliferation policies and a framework for Part II's consideration of policies for coping in a proliferated world.

2. The Dangers of Proliferation Reexamined

The conclusion that a more proliferated world would be a dangerous and nasty place, one in which the United States and other nations would confront a variety of threats to both their security and well-being, clearly emerged from Hudson's discussion of nuclear proliferation trends.* The following chart, Table 1, summarizes the main conclusions of that discussion. Nonetheless, though widely-shared, the belief in the dangers of proliferation is not without its critics. Therefore, rather than reiterating arguments presented in detail within our earlier report, this section sets out and evaluates that dissenting critique. It suggests that the dissenters' relative equanimity vis-a-vis continuing proliferation is unfounded--even if it is acknowledged that in isolated cases acquisition of nuclear weapons could be stabilizing.

Within the dissenters' critique, the following major propositions, all not necessarily adhered to by each critic, can be discerned:

- (a) The "statistical argument"--i.e., the contention that if an increasing number of countries acquire nuclear weapons, the probability of nuclear-weapon use will grow proportionately--is not only inattentive to the different consequences of proliferation in particular situations, but also is erroneous.
- (b) Western concern about the acquisition of nuclear weapons by less developed, Third World countries stems from a false, neo-colonialist, and racist belief that such countries are not sufficiently responsible to possess those weapons.
- (c) Even granting that if more countries possess nuclear weapons the likelihood of a nuclear weapon being used would increase, the nuclearization of certain regional confrontations--e.g., between Israel and the Arab states, India and China, or Taiwan and China--probably would produce a stable mutual deterrence relationship and a decreased risk of large-scale local violence.
- (d) Acquisition of limited range, low-yield nuclear weapons would provide an effective border defense for countries fearful of invasion, stabilizing regional confrontations and allowing the United States to avoid the risks of

*See Dunn and Kahn, op. cit., Part IV.

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Table 1
PROJECTION OF THE PROBLEMS AND RISKS
OF FUTURE PROLIFERATION

PROJECTION OF THE PROBLEMS AND RISKS OF FUTURE PR

Problem or Risk	Some Possible Situations or Cases	Earliest Projected Date Could Emerge	Problem or Risk
A. Risk of Use of Nuclear Weapons			Increased arms race
Inadvertent or unintended nuclear war	Argentina-Brazil Pakistan-India Israel-Egypt Greece-Turkey	Mid-1980s Early 1980s Early 1980s Early 1990s	
Catalytic nuclear war	PLO-triggered Arab-Israel war Libya or Iraq-triggered Egypt-Israel war	Early to Mid-1980s Early or Late 1980s	Increased arms race
Anonymous nuclear attack	By Libya or Iraq against Israel By Libya or Saudi Arabia against U.S. By Soviet Union against U.S.	Early or Late 1980s Early to Mid-1980s After widespread proliferation	Increased arms race
Terrorist use	Against Israel by PLO fringe Against Western democracies by "Baader-Meinhof" types	Mid-1980s Early to Mid-1980s	Superpower in Nth country
Nuclear blitzkriegs or defense against invasion	India-Pakistan South Korea-North Korea Iran-Soviet Union Taiwan-CPR	Early 1980s Mid-1980s Early to Mid-1980s Early 1980s	Undisciplined use of nuclear weapons
Calculated nuclear first-strike	Israel against Egypt India against Pakistan Soviet Union against Iran	Mid- to Late 1980s Early 1980s Mid-1980s	Nuclear weapons separation
Preventive nuclear war	CPR against Japan Iran against Iraq Turkey against Greece Soviet Union against West Germany South Africa against Zaire Soviet Union against Yugoslavia or Rumania	Late 1980s Late 1980s Early 1990s Late 1980s Mid-1990s Mid-1980s	Corrosion of authority and political legitimacy
Conventionalization of nuclear weapons	Beginning with preceding small-country nuclear wars and with shifts of Nth country doctrine	Mid-1980s	Loss of authority and political legitimacy
B. Increased Global Competitiveness and Nastiness			
Nuclear blackmail and "local Munichs"	Iran against Persian Gulf countries Libya against Israel India against Pakistan CPR against Taiwan	Mid-1980s Early 1980s Early to Mid-1980s Early 1980s	Economic and budgetary increases
Threats to "go nuclear"	Already made by: Pakistan South Korea, Turkey, and Israel	Mid-1970s	to many proliferators
Exacerbation or reinvigoration of old disputes	Argentina-Brazil Arab-Israeli dispute Libya-Egypt Iraq-Iran Iran-Saudi Arabia India-Pakistan Japan-CPR Japan-Philippines Indonesia-Philippines	Mid-1980s Early 1980s Early 1980s Mid- to Late 1980s Mid-1980s Early 1980s Mid- to Late 1980s Mid- to Late 1980s Early 1990s	Non-budgetary costs of threat
			F. Bizarre

TION OF THE PROBLEMS AND RISKS OF FUTURE PROLIFERATION

Projected Date d Emerge	Problem or Risk	Some Possible Situations or Cases	Earliest Projected Date Could Emerge
Mid-1980s	Increased regional arms racing	Argentina-Brazil India-Pakistan Israel-Arab states Japan-CPR Japan-Soviet Union Turkey-Greece Iran-Iraq Iran-Saudi Arabia	Mid-1980s Early 1980s Early 1980s Mid- to Late 1980s Mid- to Late 1980s Early 1990s Mid- to Late 1980s Mid- to Late 1980s
late 1980s	Increased superpower arms racing	ABM deployment perhaps triggered by Soviet sense of threat from Nth countries	Late 1980s
late 1980s	Superpower confrontations in Nth country disputes	Middle East South Asia Persian Gulf	Early 1980s Early 1980s Mid-1980s
Mid-1980s spread tion	Undisciplined dissemination of nuclear weapons	Possible sources: India; Libya; romantic LDC leader brought into control of nuclear weapons by coup d'etat	Early 1980s
Mid-1980s	C. Intensification of Internal Political Conflict		
late 1980s	Nuclear terrorism	Middle East Western democracies	Early to Mid-1980s Early to Mid-1980s
late 1980s	Nuclear Coups d'etat, nuclear civil wars, nuclear separatist struggles	Argentina, Brazil, South Korea, Egypt, Turkey, Pakistan, Indonesia, Libya, Greece, Iraq, Spain, Italy, and Yugoslavia	Early to Mid-1980s
D. Corrosion of Political Authority and Legitimacy			
Mid-1980s	Authoritarian global political shift	Particularly within Western democracies if threatened by nuclear terrorism and other anonymous use and/or by increased nastiness of proliferated world	Early to Mid-1980s or Mid-1990s and beyond
late 1980s	Loss of governmental legitimacy	Within Western democracies and some LDCs	In conjunction with or following above authori- tarian shift
E. Economic Costs			
Mid-1980s	Budgetary costs of increased defense spending to manage problems of proliferation	United States and Soviet Union	Mid- to Late 1980s
late 1980s	Non-budgetary economic costs of adjusting to threat of nuclear terrorism	Particularly within free- market economies and Western democracies	Early to Mid-1980s
F. Bizarre Events			

reliance upon the threat of nuclear retaliation to deter attacks upon its allies.

- (e) The major danger of widespread nuclear proliferation is likely to be a growing erosion of central governmental authority and sovereignty, rather than an increasing threat to regional and global stability.
- (f) General references to the dangers of proliferation fail to take adequate account of the differential impact of possible problems upon various countries, and, in particular, overestimate the degree to which the countries of Western Europe would find themselves directly threatened in a proliferated world.

In the course of discussing each proposition, the varied risks of a proliferated world should become evident.

a. The "Statistical Argument"

Many past studies of possible future nuclear proliferation have substituted passing references to the greatly increased likelihood of frequent or general nuclear war in a proliferated world for detailed analysis of such a world's likely problems and dangers. To the extent that the dissenting critique seeks only to emphasize that depending upon the particular characteristics of Nth country nuclear forces and the specific patterns of their strategic interaction, the sources, levels, and types of risk and instability in a proliferated world could vary significantly, its criticism is valid. The "statistical argument" is inattentive to these important particularities and their impact.*

However, more extreme variants of the dissent go beyond that necessary correction to argue that widespread proliferation probably would be stabilizing, perhaps resulting in the "outlaw[ing of] violence." In his The Balance of Terror, published in 1961, Pierre Gallois, for example, asserted that "...the limitation of [nuclear] weapons would be more dangerous than their proliferation."** According to Gallois, once possessed of an assured retaliatory capability sufficient to negate the value of its conquest by an opponent, a weaker nation could make itself "impregnable" to full-scale attack. Moreover, Gallois continued, the risk of

* For elaboration, see Dunn and Kahn, op. cit., Section III.

** Pierre M. Gallois, The Balance of Terror (Boston: Houghton Mifflin Company, 1961), p. 162.

escalation to a nuclear exchange would preclude lesser levels of conventional violence. Put simply, such nuclear decentralization would so magnify the risks to any nation of attempting to change the status quo that its acceptance would become "unavoidable."^{*}

A critical assumption of these and related arguments is that qualitative and quantitative asymmetries either would not be present in the strategic interaction between hostile pairs or groupings of Nth countries or, if present, such asymmetries would not affect significantly that interaction. It is difficult to sustain that assumption.^{**} For example, it cannot be assumed that mutual possession of stable, assured retaliatory capabilities would characterize all future Nth country strategic balances. Rather, a range of strategic balances, characterized by varying degrees of Nth country vulnerability to an opponent's first strike and, conversely, of first-strike bonus, is the more probable outcome. In addition, taking into account which countries might acquire nuclear weapons, differing requirements and capabilities for managing the problem of unauthorized seizure of one or more nuclear weapons by internal individuals or non-national groups can be expected to exist and, more importantly, to pose the prospect of an unauthorized or unintended nuclear exchange. Concomitantly, asymmetric capabilities to inflict damage or to project determination are likely to influence crisis bargaining, posing the prospect of local "nuclear Munichs" and successful nuclear blackmail. Similarly, differences in willingness to run the risk of escalation from low-level violence can be expected, suggesting that where the stakes are perceived to be sufficiently high, efforts to change the status quo by limited probes and action are not to be precluded. Finally, Gallois' and similar arguments fail to take into account the fact that should global nuclear diffusion occur, it would not do so all in a piece. Rather, a process characterized by unequal advances by different countries toward varying degrees of nuclear-weapon capabilities and sophistication is to be expected. Such asymmetric rates of nuclear development might be in themselves a destabilizing element. To take one example, in certain hostile confrontations more advanced Nth countries are not unlikely at least to contemplate a preventive nuclear or conventional strike against less advanced but potentially dangerous opponents. More generally, such asymmetric rates of development would increase the likelihood of one or another of the preceding asymmetries emerging.

^{*}Ibid., p. 7; see also, pp. 7-13, 57, 113, 175.

^{**}For elaboration, see Dunn and Kahn, op. cit., pp. 106-108.

b. The Irresponsibility Charge

Articulating a position shared by many spokesmen for potential Third World nuclear-weapon states, K. Subrahmanyam has argued that anti-proliferation efforts are based upon an erroneous and racist belief

...that while responsible powers like the U.S., U.S.S.R., Britain, France, and China can be safely entrusted with nuclear weapons, it is dangerous for Arabs and Israelis, Indians, Pakistanis, and others to have such weapons. The unstated assumption is that these lesser breeds of human beings will not act as responsibly as the former and they have frequently resorted to wars.*

Alluding both to actions of the former colonial powers and to American bombing during the Vietnam war, he goes on to ask just how responsible and unemotional the Western nations have been. In point of fact, this line of dissent suggests that the spread of nuclear weapons to less developed countries would force the Western nations to act responsibly, would hold in check their inclination to use their superior technology--including even nuclear weapons--against the former weaker nations.**

Several lines of response to Subrahmanyam's critique exist. To begin, a desire to "act responsibly" on the part of new nuclear-weapon states is not equivalent to the technological capability for doing so. On the contrary, if prior Western experience is a guide, developing a stable, reliable second-strike capability, subject to adequate command, control, and communication mechanisms, accident-proofed, and not productive of significant preemptive instabilities during an intense crisis or limited conflict, is neither cheap nor easy. More importantly, such concern about the probable technical deficiencies of at least some Nth country nuclear forces acquires added significance within the context of continuing, intense confrontations between such potential Nth countries, whether in the Middle East, South Asia, or the Korean Peninsula.

A more direct response to the second contention is also possible. Even acknowledging that the norms of responsibility are controversial and that possession of nuclear weapons could have a sobering effect,

* K. Subrahmanyam, "India's Nuclear Policy," in Nuclear Proliferation and the Near-Nuclear Countries, Onkar Marwah and Ann Schulz (eds.), (Cambridge, Mass.: Ballinger Publishing Company, 1975), p. 131.

** Ibid., pp. 131-132, 135-136.

the past actions of some potential Nth countries still lend support to the concern that certain of them might act in what deserves to be called an irresponsible manner. Within a future nuclearized Middle East, for example, Libyan efforts to catalyze an Egyptian-Syrian-Israeli nuclear exchange, its anonymous use of nuclear weapons, attempted nuclear blackmail by a nuclear-armed Libya, or a willingness to allow a PLO-type terrorist group to "steal" a Libyan nuclear weapon all would not be out of character with Colonel Qaddafi's present reported support for international terrorist organizations, his supplying of arms and money to diverse insurgent groups, and his repeated efforts to topple other Arab leaders. And, at least some of the preceding types of irresponsible action could be attractive to other future radical leaders.

Further, the institutional characteristics of many potential Nth countries reinforce the belief that concern about who would possess nuclear weapons in a more proliferated world is legitimate. To begin, many of these countries are politically unstable, their internal politics characterized by occasional military coups d'etat.* Therefore, the prospect of more radical leadership gaining control of nuclear weapons, even in presently responsible countries, cannot be precluded. King Idris' overthrow by Colonel Qaddafi is an apt example. Moreover, should domestic control of nuclear weapons emerge as an important bargaining asset and coercive instrument within future Nth country political upheavals, as could well occur, radical and ruthless fringe elements that would have failed to seize power under normal circumstances may then be able to carry out successfully a "nuclear coup d'etat."** Nor would the consequences of that internal political instability stop at the nation's borders. The prospect that more radical and romantic leadership could be brought to power by a "nuclear coup d'etat" might trigger intervention by a neighboring country. Such intervention might involve support for the existing leadership--if time permitted--or even a preemptive disarming attack against that country's nuclear force to prevent its falling into the hands of the coup-makers.***

* This includes, for example, Argentina, Brazil, South Korea, Egypt, Turkey, Pakistan, Indonesia, Libya, Greece, Iraq, and Syria.

** See Lewis A. Dunn, "Military Politics, Nuclear Proliferation, and the 'Nuclear Coup d'Etat,'" (Hudson Institute, HI-2392/2-P, April 20, 1976).

*** Taken one step further, the possibility of a "nuclear coup d'etat" points to nuclear civil wars and separatist struggles. That is, an intra-military conflict during an attempted coup might degenerate into a civil war in which nuclear weapons were used. Alternatively, nuclear weapons might be seized by a separatist movement. Moreover, access to nuclear weapons by such a movement might improve markedly its chances of success.

Furthermore, in many potential Nth countries bureaucratic and governmental checks upon the leader's freedom of action are relatively weak. Consequently, the likelihood of adventurism or of poorly thought-through, if not reckless, initiatives which then backfire--such as President Nasser's 1967 actions in moving troops to the Sinai and Sharm el Sheik--is higher than elsewhere. That, too, suggests the need to be wary of the assumption of "responsible" behavior on the part of all future nuclear-weapon states.

c. Nuclearization of Existing Regional Confrontations

Although granting the argument against widespread proliferation, some persons contend, nonetheless, that in the case of certain regional confrontations acquisition of nuclear weapons by the hostile countries probably would be stabilizing. Recently this argument has been made most explicitly about the Middle East. Steven Rosen, for example, has stated:

...the central hypothesis [of this article] is that apocalyptic visions and doomsday images of what an openly nuclear Middle East would look like have been accepted too readily....A stable system of mutual deterrence may be entirely possible, and such a system may make a positive contribution to the political de-escalation of the Arab-Israeli conflict.*

Robert W. Tucker would agree, arguing that Israeli possession of nuclear weapons would, among other benefits, force the Arabs to recognize that Israel's destruction cannot be realized at an acceptable cost.** More generally, Subrahmanyam has pointed to the presence of nuclear weapons

Intra-nation deterrence might ensue, forcing the central government to come to terms with the separatist region, either by granting autonomy or acknowledging independence. The last point should not be overstressed, however, for if the level of destructiveness threatened by the separatist region is sufficiently small, the central government might pay the price of forcing its return. In any case, as, or if, proliferation encompasses such countries as India, Pakistan, Iran, the Philippines, and Nigeria, such nuclear separatist struggles could occur.

* Steven Rosen, "Nuclearization and Stability in the Middle East" in Marwah and Schulz, op. cit., p. 157.

** Robert W. Tucker, "Israel and the United States: From Dependence to Nuclear Weapons," Commentary, Vol. 60, No. 5 (November 1975), p. 42.

in Europe and asked "might it not be that mutual possession of nuclear weapons across a hostile border induces peace settlement and dampens the possibility of war?"* He had in mind primarily the Sino-Indo conflict, as well as that between the Arab nations and Israel.

The reasoning underlying these and comparable propositions begins by arguing that the technical requirements of stable deterrence in the Middle East--e.g., a survivable second-strike capability, the ability to penetrate an opponent's defenses and inflict "unacceptable damage," and reliable and redundant command, control, and communication mechanisms--can be fulfilled. Possible concern about Arab irrationality, about a purported Arab tendency toward immoderation and emotionalism unchecked by careful calculation of expected outcomes, are rejected next either as "simplistic" or as inattentive to the moderating effect upon even radical governments of actually possessing nuclear weapons. In turn, this argument continues, the risk of escalation to nuclear conflict, should lesser-level conventional violence erupt, would either deter such violence or result in measures--such as return of captured territories--designed to remove the sources of conflict. Finally, other potential problems, including unauthorized use of nuclear weapons by mid-level military personnel, nuclear-weapon accidents, the future rise to power of immoderate leaders, and terrorist seizure and use of nuclear weapons, are passed over summarily, being regarded as readily manageable and not seen as posing any fundamental obstacles to the establishment of a stable deterrence relationship.**

Turning to the first aspect of this argument--fulfillment of the technical requirements of stable deterrence--it is important to recognize that nearly all Arab potential Nth countries are politically unstable, with a long history of military coups d'etat. Moreover, even within a country such as Egypt where the last successful coup was in 1954, the possibility of future military intervention cannot be excluded. Furthermore, within each of these countries radical Palestinian groups and/or more fanatic military officers exist who could be expected to oppose a peace settlement with Israel--should that appear likely. Given that internal political context, controlling against unauthorized seizure and use of nuclear weapons can be expected to be a fundamental objective should these countries acquire such weapons. But, if more sophisticated PAL technologies are unavailable, as is likely at least initially,

* K. Subrahmanyam, "India: Keeping the Option Open" in Nuclear Proliferation Phase II, Robert M. Lawrence and Joel Larus (eds.), (Lawrence, Kansas: University Press of Kansas, 1974), p. 123.

** On these points, see Rosen, op. cit., pp. 163-172; Tucker, op. cit., fn., p. 42.

these coup-vulnerable Arab countries may have to choose between either increasing the vulnerability of their nuclear force to surprise attack, e.g., relying upon cruder control techniques such as storing warheads in central depositories to be mated up with their delivery vehicles in times of crisis, or accepting a higher risk of unauthorized seizure and use, e.g., by maintaining nuclear-armed delivery vehicles in a constant state of readiness. At the very least, concern about unauthorized seizure and use is likely to make certain more obvious modes of protection against surprise attack, including reliance upon mobile FROG or SCUD missiles or upon naval cruise missiles on fast patrol boats, appear excessively risky.*

The probable negative impact of efforts to control against unauthorized seizure and use upon vulnerability to surprise attack is only one reason for questioning whether the technical requirements of a stable second-strike force can be met by Arab governments as readily as these critics contend. Particularly for the Arabs, producing small, well-packaged warheads for deployment on missiles is likely to be difficult.** In that case, however, the resultant asymmetric strategic balance in which Arab bombers dependent upon warning for survival confronted Israeli missiles could be especially unstable in a crisis or limited low-level conflict situation. Alternatively, should both sides be forced to rely for delivery upon bombers, joined to a launch-on-warning mode of protection, that could generate significant preemptive instabilities in a crisis and would increase the risk of inadvertent war possibly triggered by human error or a physical warning system malfunction.*** The respective size of the two forces also needs to be considered if it is assumed, as Rosen does, that both would be able to rely upon missiles as their mode of delivery. A capability on the part of the larger force to target several missiles against a single hardened missile silo, increasing expected kill probability, could be quite important, especially for the relatively small forces we are talking about. Furthermore, even if the missile forces themselves were invulnerable, protecting command, control,

* Concern about unauthorized seizure would militate as well against widespread dispersal of individual nuclear-armed aircraft to underground caves with plans to use highways as airstrips--a solution to the protection against surprise attack that Rosen proposes as well. Rosen, op. cit., p. 165.

** Rosen begs this question by "assum[ing] that Egypt or Syria were supplied [with 'miniature' warheads] by France, China or Russia." Rosen, op. cit., p. 165.

*** This would assume slower Israeli progress in developing warheads for missiles than may occur.

and communication systems is likely to be more costly, technologically demanding, and prone to failure.*

Given these uncertainties, a strategic balance characterized by mutual invulnerability should not be held to be the expected, or even the most probable, outcome of Arab and Israeli acquisition of nuclear weapons. Once that is recognized, the prospect of nuclearization of the Middle East appears less attractive. Furthermore, in so far as the degree of mutual protection against surprise attack declines for any of the preceding reasons, the potential destabilizing impact of such conceivable eventualities during a limited conflict or intense crisis as an accidental salvo or an accidental detonation, unauthorized use, ambiguous warning and other false alarms sharply increases. In each case, questions about survivability create a need for haste, a pressure to "strike second first," rather than permitting slow and careful assessment of the situation. That both sides know this to be so only serves to reinforce the resultant preemptive instabilities and to increase the risk that one or the other would decide that striking first was "the least bad alternative."

Even assuming relatively secure second-strike capabilities on all sides, however, the risk of inadvertent escalation to a nuclear exchange would remain. Yet, absent Israeli territorial disengagement and a return to its 1967 borders, that risk might not suffice to deter low-level Arab probes and even large-scale conventional violence. The stakes may be too high, the ability of individual nations to disrupt the status quo too great, the potential triggers to confrontation too diverse, and Arab readiness to run some degree of risk too strong. But, to argue, then, as Rosen does, that recognition of that risk's existence would lead to Israeli withdrawal from the "no-longer required" occupied territories is not convincing. The captured territories provide a useful buffer against low-level Palestinian guerrilla operations or a renewed conventional war of attrition designed to erode the economic foundations of Israel's independence and restore perhaps the borders of 1948. And, as Tucker notes, once in possession of a significant nuclear-weapon capability, the Israelis might turn out to be even less willing than now to make any important territorial concessions.

Finally, in assessing the relative stability of and pressures for settlement within a nuclearized Middle East, the possibilities for nuclear mischief by one or another radical Arab country or sub-national group should not be underestimated. As suggested above, inadequate

* Both Tucker and Rosen simply assume the existence of reliable and redundant C3. Rosen, op. cit., p. 183, fn. 59; Tucker, op. cit., fn., p. 42.

control mechanisms could facilitate nuclear-weapon seizure and use by a PLO-type terrorist group or a cabal of fanatic, "confrontation front" Arab officers, perhaps to disrupt Arab-Israeli peace negotiations should these ever become a reality. Or, efforts to catalyze an Israeli-Egyptian nuclear exchange might appear promising to a more radical, no-peace Arab government or to a desperate terrorist organization. Nor, to take these possibilities seriously, is it necessary to posit "Arab irrationality." Under certain conditions, such actions could appear a rational strategy given likely perceptions of the values at stake and the potential consequences calculated in terms of those values.*

In light of the preceding, predictions that nuclearization of the Middle East would result in a relationship of stable mutual deterrence, mutual restraint, and changed attitudes towards an eventual peace should be read with skepticism. Moreover, even though the preceding has focused upon the Middle East, the same or comparable uncertainties are likely to be present elsewhere. Stable mutual deterrence represents one possible outcome of the nuclearization of existing regional confrontations; it should not be assumed to be the expected outcome.

d. Nuclear Border Defense

Recently, R. Robert Sandoval has proposed that the proliferation of low-yield, limited range nuclear weapons--as opposed to what he refers to as long range destructive or retaliatory weapons--would not be destabilizing. On the contrary, according to his argument:

With the defense of its borders entrusted to forces structured around the firepower of nuclear weapons, any nation not now a nuclear power, and not harboring ambitions for territorial aggrandizement, could walk like a porcupine through the forests of international affairs: no threat to its neighbors, too prickly for predators to swallow.**

Existing regional confrontations would be defused; the superpowers would be able to avoid those risks inherent in their threat to use nuclear weapons to defend their allies. Furthermore, if sufficiently widespread, Sandoval concludes, the adoption of nuclear defenses could make territorial

* See Dunn and Kahn, op. cit., pp. 117-118.

** R. Robert Sandoval, "Consider the Porcupine: Another View of Nuclear Proliferation," Bulletin of the Atomic Scientists (May 1976), p. 19.

aggression "obsolete" and "destructive strategic nuclear weaponry... anachronistic."*

The initial difficulty with Sandoval's argument is that the technological capability and other resources needed to develop in sufficient numbers the low-yield, enhanced radiation "mini-nukes" that he has in mind exceed those of virtually all potential Nth countries. He himself recognizes this when he refers to "the assistance of powerful allies who already possess nuclear technology."** Presumably, if Sandoval's position were adopted, the United States would exercise the "supreme national interests" clause of Article X of the Non-Proliferation Treaty, withdraw from it, and so void its obligation under that treaty not to transfer such nuclear technology to non-nuclear weapon states. But the resultant collapse of the NPT system clearly would be a proliferation turning-point. Changed expectations of the future scope of proliferation and of the constraints upon "going nuclear" probably would trigger efforts to acquire nuclear weapons by a growing number of countries. More importantly, in some critical cases, e.g., Israel, Egypt, Syria, India, South Africa, Brazil, and Argentina, these new nuclear-weapon states are unlikely to adopt Sandoval's border defense posture. And, to the extent that such new nuclear-weapon states did seek instead a nuclear force capable of threatening attack or retaliation against the opponent's central homeland, the problems discussed earlier again would be salient.

Moreover, it is far from clear that even those future nuclear-weapon states that would emphasize the battlefield uses of nuclear weapons would be willing, as Sandoval's proposal suggests, to forego efforts to acquire a second-strike retaliatory capability and "simply [to] accept the risk of gratuitous destruction"*** should its opponent escalate unilaterally to counter-value attacks. For a country such as Pakistan, fears of Indian nuclear blackmail, triggered perhaps by an outbreak of large-scale internal violence in the Northwest Frontier Agency or Baluchistan and aimed at the further dismemberment but not complete destruction of Pakistan, might preclude that acceptance. And, would Pakistan respond, as Sandoval implies, with its low-yield nuclear weapons to Indian intervention in Baluchistan if the choice were between a limited loss or virtual destruction following Indian unilateral escalation? Faced with a comparable choice, would Israel so respond to an attack in the Sinai or on the Golan Heights?

* Ibid.

** Ibid.

*** Ibid.

Furthermore, assuming that the Nth countries in question would be able to build the large number of weapons necessary for reliance upon battlefield nuclear defense, would that defense be successful? Space precludes any attempt to delve into the theater nuclear force debate. It should be observed, however, that Sandoval's assertion that "the overwhelming firepower of nuclear weapons has restored the ascendancy to defense over offense"** is far from uncontested.

Finally, given both the increased numbers of available warheads and the need to relax command and control procedures inherent in reliance upon a battlefield nuclear use posture, the risk of unauthorized seizure can be expected to increase significantly. The probable risks to the United States and other nations of such unauthorized seizure, including possible terrorist use, need not be reiterated here;** those risks alone are reason for skepticism about the desirability of widespread dissemination, with more fluid control arrangements, of numerous nuclear weapons.

e. The Erosion of State Sovereignty vs. Other Dangers

Nearly all past discussions of the dangers of widespread proliferation glossed over or simply did not mention its probable impact upon domestic political and economic life. However, continued proliferation can be expected to result in an intensification of domestic conflict not only within coup-vulnerable Nth countries, but also in more politically stable Western countries that might be susceptible to nuclear terrorist assault, and could lead to a corrosion of governmental authority and legitimacy. Nonetheless, George Quester's suggestion that

...rather than altering the macroscopic distribution of power in international affairs, the major impact of substantial nuclear proliferation might thus show up at the microscopic level, seriously challenging the ability of central governments to coerce and hold sovereignty over peripheral areas***

* Ibid., p. 18.

** For example, an anonymous radical Arab terrorist group, having smuggled several weapons into the United States could threaten then to use those weapons unless the United States stopped supporting Israel.

*** George H. Quester, "The Politics of Twenty Nuclear Powers" in The Future of the International Strategic System, Richard Rosecrance (ed.), (San Francisco: Chandler Publishing Company, 1972), p. 67.

represents a partial over-correction of those earlier analyses. The preceding argument need not be reiterated; suffice it to recall that its basic contention is that more often than not proliferation at the same time would create serious international problems and dangers.

In addition, under some conditions widespread proliferation could alter significantly that "macroscopic distribution of power" to which Quester refers. Even though Gallois' contention that nuclear weapons are a great equalizer, destroying the distinction between stronger nations and weaker ones, is an exaggeration, some small nations' access to nuclear weapons is likely to reduce superpower freedom of action. For example, by smuggling clandestine nuclear devices into the United States and threatening to destroy a series of American cities following American use of force to break a hypothetical late-1980s Arab oil embargo, a more radical Arab country might be able to force the United States to withdraw. Or, a capability of a regional nuclear power to pose even a low-reliability minimum deterrence or local use threat against a superpower--perhaps in the former case also by reliance upon clandestinely inserted weapons--might make the superpower chary of intervening militarily in that region, whether to support a favored client or to oppose expansionist behavior by that regional nuclear power. An Israeli nuclear force could have the former effect upon the Soviets; an eventual Iranian or Brazilian nuclear force could have the latter effect upon the United States. Other examples could be provided, each suggesting ways that proliferation might alter the distribution of power at the global level.

f. Differential Impact of Proliferation

As the dissenters correctly emphasize, the problems of a proliferated world are unlikely to be equally threatening to every nation. That granted, it is nonetheless necessary to take issue with the apparent presumption of much European thinking about proliferation that those problems are primarily a threat to the superpowers. Table 2, based upon Hudson's earlier study, summarizes the salience of varied proliferation problems for the United States, the Soviet Union, and Western Europe. Those aspects of the chart focusing upon proliferation's impact upon the latter countries warrant brief explanation.

To begin, under certain conditions anonymous use of nuclear weapons or threats of use against a European country may occur. To illustrate, such use or threatened use might be undertaken by a radical Arab government or sub-national group in an attempt to force a European country to deny transit rights or port facilities to the United States during a future Arab-Israeli conflict. Possible use of nuclear weapons to destroy the Azores air base or threatened use to prevent American

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Table 2
SALIENCE OF PROLIFERATION PROBLEMS

	<u>UNITED STATES</u>	<u>WESTERN EUROPE</u>	<u>SOVIET UNION</u>
NTH COUNTRY NUCLEAR FORCES TARGETED UPON			
IN 1980S			H
IN 1990S	L-M		H*
ANONYMOUS ATTACK (BY GOVERNMENT OR SUB-NATIONAL GROUP)	M-H	L-M	L-M
NUCLEAR TERRORISM	H	H	
CONVENTIONALIZATION OF NUCLEAR WEAPONS	M	M-H	L
SUPERPOWER ARMS RACING	M		M
SUPERPOWER CONFRONTATION ARISING FROM LOCAL DISPUTE	H	M	H
AUTHORITARIAN POLITICAL SHIFT	H	H	
LOSS OF GOVERNMENTAL LEGITIMACY	H	H	L-M
ECONOMIC COSTS	L		L
NUCLEAR "COUP D'ETAT"		M	
BIZARRE EVENTS	H	H	L

*HOWEVER, CONTINUED SOVIET IMPROVEMENTS OF THEIR ACTIVE AND CIVIL
DEFENSE CAPABILITIES MAY MAKE THIS A MORE MANAGEABLE PROBLEM FOR
THE SOVIETS THAN FOR THE UNITED STATES.

resupply of Israel from NATO stocks as occurred in 1973 are not implausible examples.*

Their likely vulnerability to nuclear terrorism and nuclear extortion also should be taken more seriously by European governments. For a successor to the Baader-Meinhof Gang that viewed its objective as destroying bourgeois society, there is little reason to believe that nuclear terrorism would not be accepted as a suitable means. Moreover, the likelihood of non-national group access to nuclear weapons probably is strongly related to the number of countries that eventually acquire nuclear weapons. In part that stems from the general increase in opportunities for nuclear theft or unauthorized access in a world of many more nuclear-weapon states. It also has to do with the specific possibility, noted earlier, that for technical and political reasons command and control procedures within many new nuclear-weapon states may be inadequate.

Turning to other proliferation-related threats to the security of Western European countries, the conventionalization of nuclear weapons and the erosion of the nuclear taboo also would affect them adversely. By lowering the nuclear threshold, conventionalization would increase the likelihood that Western Europe would become that nuclear battleground which it seeks to avoid. Similarly, in evaluating the security risks of a proliferated world, Europeans should not overlook the possibility that if a superpower military confrontation and clash arising out of a local nuclear conflict occurred, it easily could escalate to involve them. Moreover, even if such a confrontation were resolved short of open conflict, it might trigger--perhaps inappropriately, given the importance of American interests in Europe--a recrudescence of American isolationist tendencies and disengagement from Europe in a spirit of sauve qui peut.

As for less tangible but no less real threats, should Western European governments prove unable to cope successfully with such problems as nuclear terrorism, nuclear theft, and anonymous use, a marked erosion of governmental legitimacy can be expected. In countries in which the legitimacy of the government is already a matter of dispute, it would become even more difficult to manage or be seeming to manage simply domestic concerns. Conversely, the result of efforts to manage the preceding problems could be an increasing authoritarian political shift. Liberal values and procedural norms might be eroded where they exist.

*The former example was suggested by Tom Schelling.

Widespread proliferation could threaten the domestic well-being of European countries in other ways. Should such politically unstable countries as Italy, Spain, or Portugal emerge as nuclear-weapon states, nuclear weapons could become a factor in a future domestic political upheaval within any one of them. In point of fact, a European precursor to such events already exists: during the April 1961 "Revolt of the Generals" in Algeria, the French government hastily detonated a nuclear device at its Reganne, Algeria test site to avoid any risk of its falling into the hands of the rebels.* That is, the "nuclear coup d'etat" should not be considered a problem only of less developed countries (LDCs).

Finally, if past experience is any guide, proliferation is likely to be accompanied by unforeseeable bizarre problems, which, if now mentioned, would be rejected out-of-hand. For example, in 400 A.D. an individual whose name is known but undeserving of mention destroyed the Greek Temple of Apollo "to go down in history" as the man who had done so. The relatively open societies of Europe cannot be assumed to be immune to such occurrences. Therefore, for this reason as well, European complacency about "what would happen to us" in a proliferated world is likely to prove unfounded.

g. Some Complications

Thus, taken as a whole, widespread nuclear proliferation probably would affect adversely regional and global stability and threaten the domestic well-being of most countries. That conclusion both demands and legitimizes efforts to prevent nuclear proliferation. However, two complications should not be overlooked.

On the one hand, in isolated cases acquisition of nuclear weapons by a particular country or set of countries possibly might not be destabilizing. For example, future Taiwanese acquisition might facilitate the emergence of more stable relations between Taiwan and the People's Republic of China by precluding invasion and strengthening Taiwanese domestic morale. Or, under some hypothetical conditions, creation of a European nuclear force might be a necessary means of defusing pressures for independent West German and Italian nuclear forces. On the other hand, in certain cases a decision to acquire nuclear weapons may be that country's least bad alternative, forced upon it by the nuclear-weapon policies of its neighbors. A Pakistani effort triggered by eventual emergence of an Indian nuclear force to acquire at least a crude nuclear-weapon capability could be an example.

* See Donald G. Brennan, "The Risks of Spreading Weapons: A Historical Case," Arms Control and Disarmament, Vol. 1 (1968), pp. 59-60.

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At first glance, both of the preceding complications suggest that non-proliferation policy might want to differentiate among particular instances of proliferation, e.g., tolerating some but not others. But, from the policy point of view, picking and choosing which proliferation to oppose may be an unavailable luxury. Given the existence of possible proliferation chains linking specific potential Nth countries, emerging pressures to acquire nuclear weapons in other less desirable cases, and the growing availability of requisite nuclear knowledge and materials, proliferation, should it occur, is unlikely to be limited only to the isolated stabilizing cases. More important, as for tolerating cases where "going nuclear" had become a regrettable least bad alternative, unless those cases can be sufficiently distinguished, the costs of toleration could turn out to be excessive. We shall return to this problem in the following section.

3. Reinforcing Constraints Against and Disincentives to Nuclear Proliferation

The scope and pace of possible future proliferation, as discussed in detail in Hudson's earlier report,* will be determined by changing patterns of interaction between pressures and incentives for acquiring nuclear weapons and constraints and disincentives to doing so. This section of the report examines measures for reinforcing constraints upon and increasing disincentives of potential proliferators; the following one takes up the question of how to defuse pressures and decrease incentives for "going nuclear." Both types of measures are necessary and complementary components of a non-proliferation strategy.

a. Nuclear-Exports Policy Issues

During the past year, the need to slow the continuing spread of nuclear-weapon mobilization bases to potential proliferators has been the subject of growing official and public concern. In pursuit of that objective, the United States reportedly has used its leverage over South Korea and Iran to persuade them respectively not to acquire sensitive plutonium reprocessing and uranium enrichment facilities. Concomitantly, both bilaterally and at the London nuclear suppliers' talks American policymakers have sought to foster agreement upon tighter controls over nuclear exports. This latter effort, however, has been only partially successful. Even though the participants--the United States, France, West Germany, the United Kingdom, the Soviet Union, Canada, and Japan--were able to agree upon several nuclear-tightening rules,** an agreement not to sell sensitive facilities could not be reached. Arguing that

* Dunn and Kahn, op. cit., Part II.

** The London suppliers' meeting agreed upon the following:

1. The requirements that recipients must apply international (IAEA) safeguards on all nuclear imports.
2. The requirement that the importer give assurances not to use these imports to make nuclear explosives for any purpose--whether called "peaceful" or not;
3. The requirement that the importer have adequate physical security for these nuclear facilities and materials to prevent theft and sabotage; and
4. The requirement for assurances that the importers will demand the same conditions on any re-transfer of these materials or types of equipment to third countries.

Statement of Fred C. Iklé, former Director, U.S. Arms Control and Disarmament Agency, before the Subcommittee on Arms Control, International

indigenous development of such facilities would occur in any case and that therefore it was better to export thoroughly safeguarded facilities, the French and the West Germans proved unwilling to accept a sale moratorium. Thus, the London talks could produce agreement only upon an intention "to use restraint in supply of these [sensitive] exports."^{*}

Nonetheless, in his October 28, 1976, statement on nuclear policy former President Ford indicated his intention to continue seeking agreement upon a moratorium on the export of such sensitive nuclear facilities. Particularly because the outcome of the recent high-level French review of nuclear-exports policy could be greater readiness to exercise restraint in this area, efforts along these lines appear warranted. However, intensified diplomatic persuasion and renewed attempts to convince Europeans that proliferation would pose dangers to them, with contacts at the highest levels designed to convey the seriousness of American concern, may not suffice to change French and West German policy. In an increasingly competitive nuclear-export market, the domestic pressures upon French and West German officials to play down proliferation's danger for their countries and to submerge the policy preferences of the United States--valued ally or not--could take precedence.

In any case, continuing efforts to influence the policies of nuclear importers, also building upon the October 28 policy statement, are required. One line of action might involve consideration of how to flesh-out that October 28 statement's proposed creation of mechanisms for guaranteeing assured access to nuclear fuel to countries forgoing acquisition of domestic reprocessing and enrichment facilities and accepting adequate safeguards. Related to those efforts could be establishment of international arrangements for spent fuel storage. Further, in attempting to influence these countries' decisions the potential impact of American domestic nuclear-energy choices should not be overlooked. In particular, the proposed deferral of commercial plutonium reprocessing might help not only to establish American credibility vis-a-vis the other suppliers whom we are attempting to convince not to sell sensitive facilities, but also might affect the calculations of at least some nuclear importers. Finally, efforts to influence the policies of critical nuclear importers might require continue readiness to exert leverage, such as reportedly has occurred already in the South Korean case.^{**}

Organizations and Security Agreements, Committee on Foreign Relations, U.S. Senate, February 23, 1976, p. 1.

^{*} Iklé, Ibid., p. 2.

^{**} For a further discussion of leverage, see the following section's discussion of sanctions against proliferation.

In addition to the preceding efforts to achieve a moratorium on export of sensitive facilities and to influence nuclear importers' decisions, nuclear-exports policy might seek to foster agreement among the major suppliers upon procedures and responses for handling possible future safeguards agreements violations or violations of related agreements for nuclear cooperation. Among the questions to be resolved would be: Who would be responsible for responding, by what procedures would it be determined that a violation had occurred, and what particular sanctions would countries be expected to invoke? Prior public agreement upon these issues would both help to deter violations and to increase the likelihood of an effective response. The latter may be especially important because, as discussed more fully below, an ineffective or weak response to a safeguards violation could be an important proliferation turning-point.*

Turning first to the issue of responsibility, the most useful rule for responding to safeguards agreement violations would be one of collective responsibility. That is, all the major nuclear suppliers would agree to consider a violation of a safeguards agreement with any supplier as a violation of an agreement with them--and to act accordingly. Barring agreement upon a rule of collective responsibility, it might at least be possible to reach agreement upon a principle of "non-interference." Put otherwise, each country would agree not to act in such a manner as to negate that response taken by the nuclear supplier whose agreement had been violated. Should a future safeguards violation, for example, result in American termination of nuclear assistance or nuclear fuel supplies, the other nuclear suppliers would not attempt to make up the loss to the violator.

In addition to the question of responsibility for taking action, it also would be necessary to reach agreement upon procedures for determining in ambiguous cases that a violation had occurred. One possibility would entail reliance upon a finding of violation by the IAEA Board of Governors; another would leave to the prime nuclear supplier whose agreement was involved the right to make that finding. Reliance upon the former mechanism could risk politicization of the IAEA leading to a lessened organizational capability to carry out its other tasks. But, reliance upon the prime supplier risks tying policy too closely to a possibly prejudiced determination. Thus, it might be useful to allow for both procedures and to link the procedure for determining a violation to the issue of responsibility. That is, where the IAEA Board of Governors had acted, collective responsibility would be the rule; where only the prime supplier had alleged a violation, at least the "non-interference" rule would be followed.**

* See below, Part I, Section 5.

** That is, those countries that wished could join in the response.

Certification of violation has to do not only with what body determines a violation has occurred, but also with who should bear the burden of proving that safeguards noncompliance actually had occurred. Present procedure is mixed. In the event of a dispute, IAEA safeguards agreements with NPT parties evidently place the burden of proof on the safeguarded state. It must establish its compliance. Conversely, with non-NPT parties, the IAEA must prove that the allegation of noncompliance is valid.* But barring a country's extreme decision simply to throw out the inspectors and nationalize the facilities, it may be difficult without intrusive inspections to search for clandestine activities or stockpiles of diverted nuclear materials to prove incontrovertibly that a violation had occurred.

Therefore, agreement to relax the burden of proof for alleged safeguards violations in non-NPT countries to that for NPT parties should be sought. In this case, the accused violator would be presumed guilty until prove innocent by its own actions or by voluntary thorough inspection carried out through the auspices of the IAEA and/or the nuclear suppliers in question. Even though such a shift of the burden of proof might be perceived and denounced as inequitable by non-NPT parties, it could be justified as necessary to remove an inequitable difference of treatment between them and NPT parties. Moreover, it would increase the likelihood of deterring a safeguards violation.

Finally, this aspect of American intra-nuclear supplier diplomacy might seek agreement upon specific responses or types of responses, preferably collective, to safeguards agreement violation. A variety of possible economic, security, and nuclear-assistance-related responses which could be the subject of such intra-supplier consultations are examined in detail within the following section and will not be discussed here.

To sum up, in the wake of the recent London agreements, American nuclear-exports policy usefully might explore the possible use of diplomatic persuasion to foster agreement upon issues of responsibility, procedures for determining violation, and specific responses in regard to safeguards-agreement or other nuclear agreement violations. Should the re-vamped London suppliers' group of 14 prove too unwieldy a format, an alternative would be to pursue agreement upon these issues among the original group of seven. Barring that, efforts to reach agreement among a still small ad hoc grouping, perhaps comprised of the United States, Canada, West Germany, the United Kingdom, and Japan, would be possible.

* Nuclear Weapons Proliferation and the International Atomic Energy Agency, U.S. Senate Committee on Government Operations, March, 1976, p. CRS-97.

b. Sanctions upon Proliferation

As argued elsewhere,* concern about the possible adverse reactions, including sanctions, of other countries is and can be expected to remain one of the most important disincentives to acquisition of nuclear weapons. To assess their possible role within American non-proliferation policy, this section briefly notes the existing status of sanctions and possible future developments, delineates the purposes they might serve, considers their risks, proposes the combination of automatic and presumptive sanctions, and enumerates specific sanctions that the United States alone or with other countries' support credibly could threaten to invoke vis-a-vis near-term critical potential Nth countries.

Current Status

Each of the following documents or policy statements already encompasses a threat to impose sanctions under certain conditions: the International Atomic Energy Agency Statute; American Agreements for [Nuclear] Cooperation; the amended Foreign Assistance Act of 1961; and former President Ford's October 28 nuclear policy statement.

More specifically, the IAEA statute provides for possible suspension of Agency or member assistance to a state found in noncompliance with its safeguards obligations, demand for the return of all materials and equipment by such a state, and its suspension from the privileges and rights of membership. A comparable right to suspend or terminate the Agreement and to require return of materials, devices, and equipment in the event of noncompliance with its provisions is written into American Agreements for Cooperation. As for the Amended Foreign Assistance Act of 1961, Sec. 669 provides for termination of economic and military assistance under specified conditions to countries acquiring plutonium reprocessing or uranium enrichment equipment, materials, or technology. Finally, the October 28 policy statement threatened an automatic cut-off of nuclear fuel and assistance, and warned of other sanctions going beyond termination of nuclear assistance, to countries' violating a safeguards agreement to which the United States was a party.

Thus, future development of sanctions strategy could build upon a series of prior initiatives. In so doing, it might extend both the range of possible sanctions that might be imposed and the list of activities which could trigger their imposition. Whether to do so would depend partly upon the purposes and risks of sanctions discussed next.

*See Dunn and Kahn, op. cit., pp. 20-22.

Purpose of Sanctions

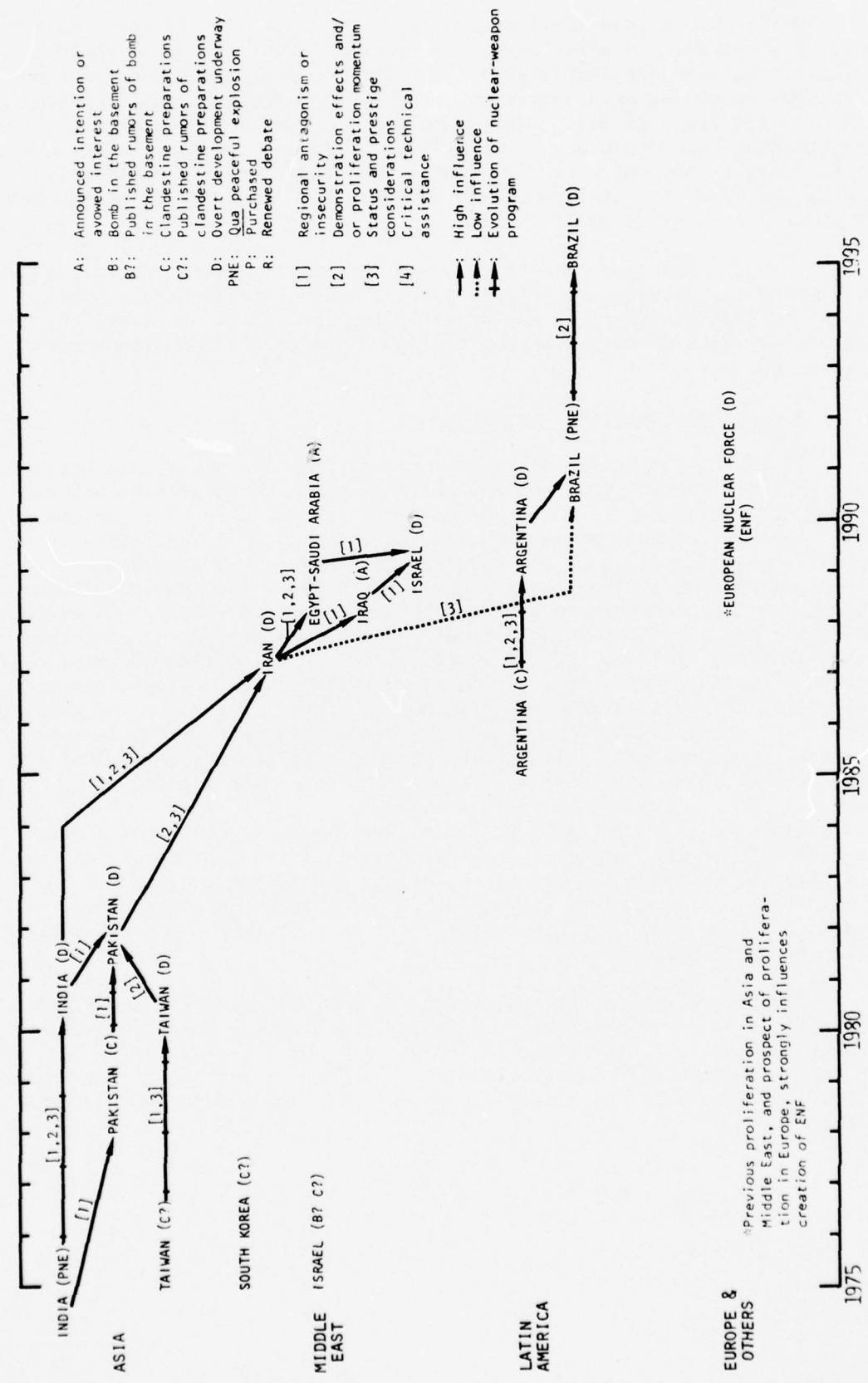
Setting aside temporarily the question of what action might trigger sanctions--and how the character of that trigger might affect a sanctions strategy--several purposes for threatening and, if necessary, invoking punitive sanctions should be distinguished. One purpose, of course, would be to influence the potential proliferator itself. The threat of sanctions, for example, might be used to pressure a country that had begun clandestine nuclear-weapon preparations to halt those preparations. More generally, the threat or prospect of sanctions could increase the likelihood that the potential proliferator would continue to believe the balance of incentives and disincentives still favored a decision not to acquire nuclear weapons or, perhaps, at least not to do so overtly.*

A second, though frequently overlooked, purpose of sanctions, especially if deterrence has failed, would be to influence the policies of other potential proliferators. To illustrate, consider the projection of "Limited, but Steady Proliferation to 1995," Table 3, taken from Hudson's earlier report. As therein depicted, failure to respond actively to posited Indian and Pakistani decisions to develop nuclear weapons probably would have important "demonstration effects" for Iran, just as a comparable failure regarding a Taiwanese decision would have for Pakistan. In such cases, and particularly if a safeguards agreement was violated, other candidate nuclear-weapon states' perceptions of their freedom of action could be expected to increase. These costs of inaction should not be overlooked. Conversely, a strong response would lead these onlookers to think again about the costs of "going nuclear." In fact, even a response only partly effective against the primary country, e.g., India, could have a more weighty deterrent impact upon other countries over whom greater leverage exists.

A third reason for sanctions within an American non-proliferation policy would be to help prevent emergence of the belief that widespread proliferation was inevitable. Should key proliferation events go unopposed, such a belief could gain adherents. That would erode efforts to control the spread of nuclear-weapon mobilization bases because each nuclear supplier would then ask why it alone should sacrifice pursuit of commercial advantage in support of a lost cause. Concomitantly, proliferation momentum and pressures upon diverse countries to "go nuclear" could be expected to increase. Thus, as above, inaction again has its risks.

* As argued below, even if it is not possible to deter a covert program, it may be less undesirable than an overt one.

LIMITED, BUT STEADY, PROLIFERATION TO 1995



EUROPE &
OTHERS

Previous proliferation in Asia and
Middle East, and prospect of proliferation
in Europe, strongly influenced
creation of ENF

†EUROPEAN NUCLEAR FORCE (ENF)

One final purpose for invoking sanctions specifically for a safeguards agreement violation should be noted. Failure to do so would be likely to weaken the IAEA's ability to perform its safeguards functions in other countries or situations. Both diffuse organizational morale and the readiness of particular inspectors to question ambiguous actions by potential proliferators could well be seriously eroded. In turn, the IAEA Board of Governors hardly can be expected to make controversial decisions finding violation in the absence of an expectation of support from key non-proliferation forces.

Thus, an American readiness, supported to the extent possible by like-minded countries, to inflict sanctions upon proliferators would serve a range of important non-proliferation purposes. However, the potential risks of that course of action also must be understood and evaluated.

Some Potential Risks of Sanctions

To begin, the belief of many countries that the NPT regime creates and enforces unequal statuses and obligations in world affairs probably would be reinforced. Threatening sanctions is likely to be perceived as "yet another" example of the "nuclear-haves'" readiness to preserve their position and to hold down the "nuclear have-nots." If that sense of discrimination contributed significantly to proliferation pressures, sanctions could be counter-productive. However, the possibility and extent of these negative consequences should not be exaggerated. Their magnitude probably would be reduced where a clear-cut violation of legal obligations had occurred. In addition, country-specific pressures and constraints, not this sense of discrimination, are likely to be the driving forces of decisions to "go nuclear." That sense could reinforce some states' pressures to acquire nuclear weapons for reasons of status; but the fear of sanctions could well neutralize even that impact.

A second risk, at least at first glance more troublesome, is that sanctions might be ineffective. That is, not only might countries not be deterred by their threat, but sanctions' impact could turn out to be manageable. If so, other countries, rather than being constrained, could conclude that they, too, had little to fear even from implementation of sanctions.

Experience with sanctions, moreover, has been far from reassuring on this point. For example, even though the Canadian government has terminated nuclear assistance to India, with modest delays India has been able to continue its nuclear program. Or, despite United Nations economic sanctions, not only has Rhodesia been able to find clandestine markets

for its products but also imports have continued to find their way to Rhodesia via South Africa. Spurred by defiance and with efforts to develop an independent economic base, the Rhodesian economy grew at an annual rate of 10 percent over the past ten years.* The ineffectiveness of these sanctions resulted from many governments' readiness to place their economic need for Rhodesian products and markets above the broader U.N. goal of political rights for the black majority.** Comparable experience characterized the use of sanctions against Mussolini's Italy in 1935 by the League of Nations and Castro's Cuba by the United States in the 1960s.***

Nonetheless, simple extrapolation from past marginal success to the conclusion that the risk of sanctions' failure is high should be avoided. Much depends upon the specific vulnerabilities of the most important near-term critical potential proliferators, and, where multi-lateral action would be necessary, the number of countries that would have to agree to participate. Further, as argued below, significant leverage does exist. And the task of creating an effective sanctions-coalition may be significantly less of an obstacle than previously.

To continue this discussion of sanctions' possible risks and negative consequences, just as using American nuclear leverage against our European allies might trigger increased pursuit of fuel-cycle independence, so might use of sanctions against a new nuclear-weapon state. But the risks would vary. If a violation of a legal obligation had triggered sanctions, the United States' image as a reliable supplier for countries meeting their legal commitments probably would not be seriously affected. Even though some potential proliferators might find that definition of reliability too uncertain, others are likely to find it acceptable. Thus, at least for legal violations, the arguments against the proposed coercion of American allies are not fully applicable.

* The Wall Street Journal, January 16, 1976.

** Recent changes in Rhodesian policy are to be explained in terms of the threat of military conflict and of South African unwillingness to be drawn into such conflict.

*** See George W. Baer, "Sanctions and Security: The League of Nations and the Italian-Ethiopian War, 1935-1936," International Organization, Vol. 27 (Spring 1973), pp. 165-179, and Anna P. Schreiber, "Economic Coercion as an Instrument of Foreign Policy: U.S. Economic Measures Against Cuba and the Dominican Republic," World Politics, Vol. XXV (April 1973), pp. 387-405.

A fourth risk is that inflicting sanctions upon a country that had not yet decided to develop a full-fledged nuclear force instead could crystallize that decision. For example, if recently published rumors of Taiwanese "hot lab" plutonium reprocessing are correct and a covert Taiwanese nuclear-weapon program is underway, a strong American punitive response, "to make an example" of Taiwan, in all probability would trigger a Taiwanese decision to develop overtly a nuclear force. Having paid the political and economic price for lesser actions, Taiwan reasonably could decide that it might as well get the political and military benefits of having and testing nuclear weapons.* Other examples of a counter-productive stimulation of decisions could be provided.**

A possible additional risk is that in some instances carrying out the threat of such punitive action either could clash with other American foreign policy objectives or simply appear inappropriate within the total context of events. For example, a strong punitive American response after India's first nuclear test clearly would have clashed with the on-going efforts to normalize United States-India relations. Or, take the scenario of Hudson's earlier report where Libyan acquisition of a "gray market" nuclear weapon triggered balancing Israeli nuclear deployment without any Israeli safeguards agreement violation. Strong pressures upon the American government, both domestic and otherwise, not to resort to sanctions against Israel could be anticipated. Where non-proliferation objectives are dominant, this risk of conflicting purposes might have to be accepted. In other cases, it is reason for allowing some discretion to sanctions policy, perhaps along the lines discussed below.***

Finally, in delineating the potential risks of sanctions, possible retaliatory action should not be overlooked. In addition to more conventional courses of action, e.g., economic counter-leverage by an oil supplier or a refusal to repay past loans, a new proliferator could use its growing nuclear-weapon base to engage in disruptive and irresponsible nuclear-exports practices.**** For example, it could provide covert

* For further discussion of responses to covert or rumored programs or preparations, see below, Part I, Section 5.

** How a sanctions strategy might attempt to manage this risk is discussed later.

*** See below, pp. 33-35.

**** See Dunn, "Nuclear 'Gray Marketeering'."

technical assistance to other potential proliferators with which it had close ties or it could even sell them strategic special nuclear material. The sanctioned country thus could earn valuable financial or political benefits and seriously threaten overall non-proliferation efforts.

An Illustrative Sanctions Decision-Tree

By way of more graphically illustrating the preceding points about the benefits and risks of sanctions, the decision-tree on p. 34 depicts the range of possible decision points and alternative possible outcomes that would be involved after a possible sanctions-triggering activity. To simplify the discussion it begins from the point where the United States would be confronted by evidence of possible violation of one of its Agreements for cooperation. Other possible triggering activities--e.g., an IAEA finding of noncompliance with safeguards or one of compliance with which the United States disagreed, evidence of nuclear gray marketeering, violation of another country's Agreement for Cooperation, withdrawal from the NPT, legal termination of safeguards agreements, or evidence of legal activities directed towards acquisition of nuclear weapons--would involve similar decision points and alternative possible outcomes.

Automatic and Presumptive Sanctions

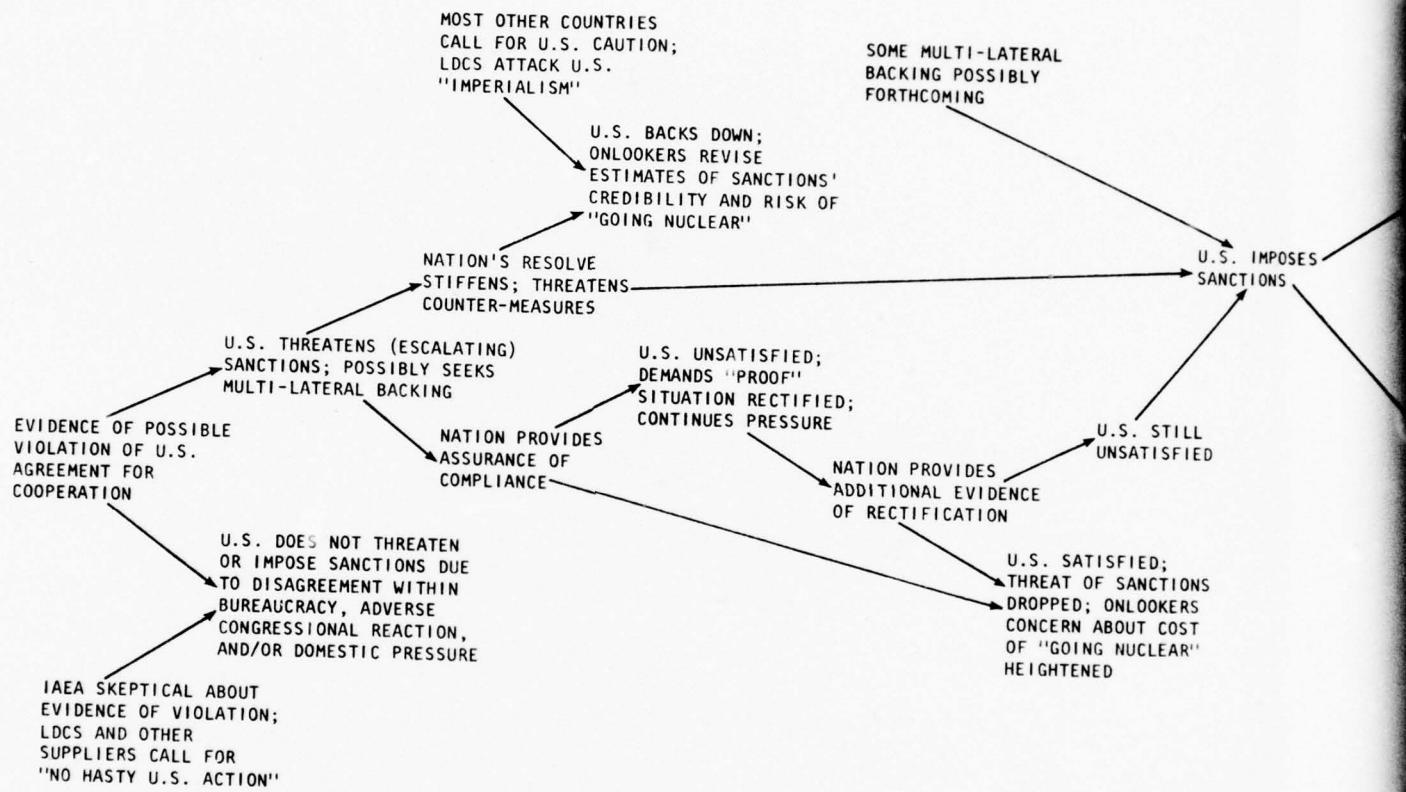
As the preceding discussion indicates, if action as well as inaction has risks, what is needed is a sanctions strategy which would minimize sanctions potential negative repercussions while maximizing their direct and indirect deterrent effects. One potential strategy would postulate two distinct American postures: one stating that sanctions would be automatic where a legal obligation had been violated and the second establishing a strong presumption of sanctions against other possible triggering activities. For several reasons, this differentiation between automatic and what may be termed presumptive sanctions would constitute an appropriate balancing of the risks of inaction and the risks of action.

First, as argued in Hudson's earlier report, failure to respond strongly to a safeguards agreement violation or the violation of some other nuclear proliferation-related legal obligation would be a proliferation turning-point. It probably would increase significantly both the pace and scope of future proliferation. The threat of an automatic, rigidly enforced response to such violations recognizes that. Further, it rests upon the valid conclusion that the risks of inaction here outweigh those of action--including even the risk of only partly effective action against the perpetrator. That is, the demonstration of a readiness to act probably would sway other more vulnerable countries who would have to assess the impact upon themselves of sanctions appropriate to their cases.

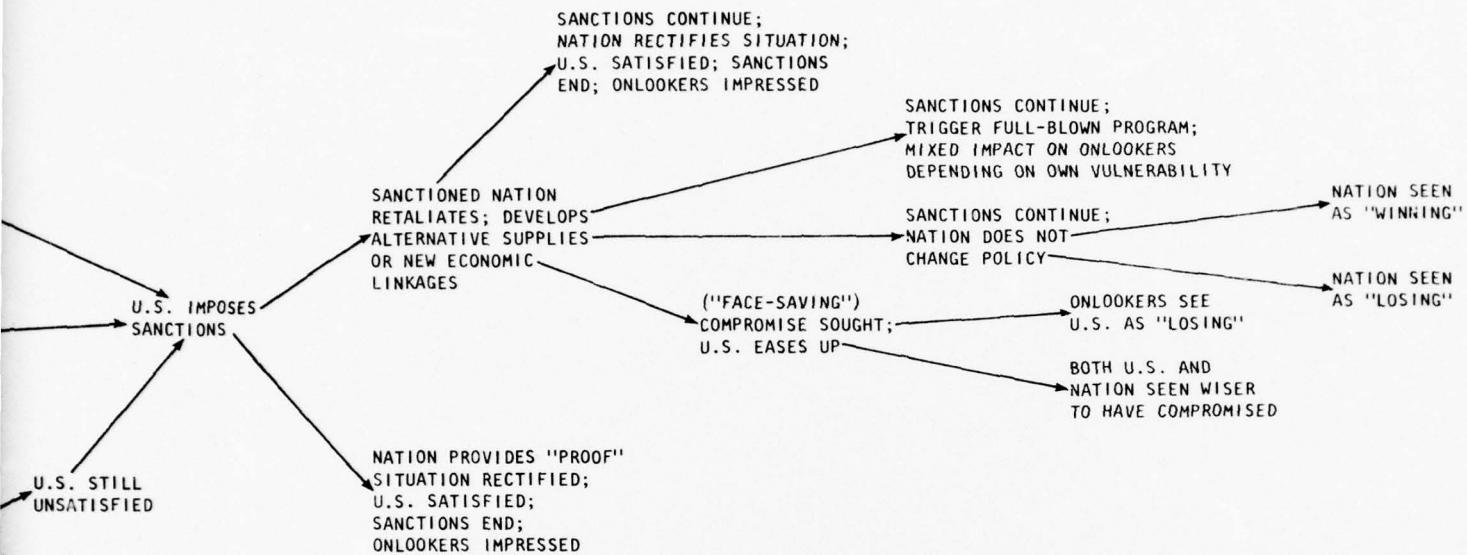
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Table 4
ILLUSTRATIVE U.S. SANCTIONS DECISION-TREE

ILLUSTRATIVE U.S. SANCTIONS DECISION PROCESS



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Second, a presumptive sanctions posture for other situations would acknowledge that in a limited number of situations the risk of action might be too great and discretion might be required. However, it would emphasize also that any act of proliferation, even if not legally proscribed, might result in significant changes in American policy--supported, it is to be hoped, by like-minded nations--toward the perpetrator. Both declaratory policy, including suitable references to Congressional authorizing legislation, and low-key diplomatic contacts could be used to convey the point.

Third, even though some countries still might question whether sanctions actually would be invoked, the presumptive sanctions posture could have an important deterrent effect upon most near-term critical proliferators. Countries with high degrees of vulnerability to sanctions could not afford to discount too heavily the risk that the threatened action would be implemented.* If the evaluation seems excessively sanguine, it should be recalled how just such a threat by the United States--if public accounts are accurate--influenced South Korea's recent decision to withdraw its order for a French plutonium reprocessing facility.

Fourth, the distinction between an automatic and a presumptive sanctions posture, based upon whether or not a legal obligation had been violated, probably would facilitate efforts to convince other key countries to join the United States in attempting to increase the costs of "going nuclear." As will become evident below, multilateral support by a few countries in some situations would increase significantly the degree of available leverage. But, at least initially, other countries might only be willing to support coordinated action where legal obligations had been violated. Having first won acceptance of the need for coordinated sanctions in those cases, American efforts could proceed to the task of obtaining agreement on possible responses to other situations. Put simply, the proposed strategy would conserve scarce diplomatic resources and maximize their return.

Available levers

What types of particular levers could be incorporated into either an automatic or a presumptive sanctions posture? Depending upon the specific potential proliferator--and assuming that present patterns of

* However, to repeat, in some situations, sanctions or not, any one of these countries could decide that overriding pressures to "go nuclear" had emerged. Sanctions, thus, are only one aspect of non-proliferation strategy.

economic and security relationships continue and that planned nuclear-program growth occurs--there are varying degrees of near-term vulnerability to one or more of the following conceivable unilateral or coordinated measures:

1. termination of nuclear-exports--by the United States, a like-minded nuclear-supplier, or both;
2. delay or withholding of United States Eximbank loans;
3. a unilateral American cut-off of economic assistance;
4. delay or blockage of access to loans from the World Bank Group, requiring coordinated action by only a small ad hoc coalition of countries using their weighted voting power*;
5. imposition of a trade embargo by a coalition of trading partners;
6. American supported multilateral economic assistance cut-off;
7. American refusal to continue supplying advanced conventional arms;
8. American withdrawal of a prior security guarantee;
9. redefinition of the scope of a prior American security guarantee so that it would not provide protection against a third party attack upon the guaranteed country's incipient nuclear-weapon facilities;
10. a ban on private investment;
11. expulsion from the United States of the sanctioned country's students, a ban on tourism to and from it, refusal of landing rights for its airline, and severance of communications; and
12. destruction of the misused nuclear facilities.

The Legitimacy of Sanctions

By way of conclusion, it may be useful to confront directly the argument of some that sanctions are inherently illegitimate and undesirable. Rather than creating positive sentiments in support of non-proliferation, so the argument goes, sanctions seek to force adherence, reluctantly given, to that objective. Three related responses are warranted.

* President McNamara's policy is not to bring loans to a vote when 40 percent of the weighted votes are opposed. The United States plus two or three other countries such as Great Britain, Canada, West Germany, Japan, and the Netherlands would control that 40 percent.

First, it is necessary not to exaggerate the possible contribution of sanctions to an American non-proliferation strategy. Should incentives to acquire nuclear weapons become strong enough, with or without the prospect of sanctions, a country's decision to do so probably would be made. Efforts to reduce incentives for "going nuclear" and to create more positive inducements for nuclear abstention, along the lines discussed in Section 3, clearly are required.

Second, where significant but not overriding pressures for violating or circumventing a legal obligation exist, the threat of punishment may be a necessary countervailing factor. As Ernest van den Haag has argued recently in the case of crime in modern society:

The laws legislated by society are not self-enforcing. They become effective only when society does for them what nature does for its law--when society defeats the purpose of those who ignore its laws, or inflicts punishment, which makes defying them dangerous, disadvantageous, painful, and, above all, odious. Disregard of physical laws is naturally dangerous and unprofitable; disregard of legal laws must be made so socially, if people are to be deterred from disregarding them....*

Third, as argued above, the risks of inaction or abstention from sanctions, when confronted by important proliferation turning-points such as safeguards agreement violations and the emergence of new nuclear-weapon states, may be quite substantial. To repeat, such inaction may lead critical onlookers to revise markedly upward perceptions of their freedom of action. For that reason, as well, it is justifiable to conclude that sanctions are a necessary component of non-proliferation strategy.

c. A Comprehensive Test Ban

The desirability of American support for a comprehensive test ban (CTB) agreement is increasingly a subject of debate. At issue are the magnitude of its possible costs, including problems of weapon-stockpile reliability and degradation in the quality of American weapon laboratories; the potential benefits--said to range from slowing the Soviet-American arms race to improving the general climate of Soviet-American

* Ernest van den Haag, Punishing Criminals (New York: Basic Books, Inc., 1975), pp. 18-19, 65-68.

relations, and including a reduced likelihood of widespread proliferation; the extent, if at all, to which such benefits outweigh possible costs; and whether or not the United States should support a CTB only on the condition that all existing nuclear-weapon states adhere to it and that such an "inclusive comprehensive test ban" (ICTB) agreement include an explicit Escape Clause.* This section, however, does not attempt to examine each of these issues. Instead, it focuses upon how and to what degree a CTB or an ICTB could be expected to reinforce non-proliferation efforts.

The belief that successful negotiation and implementation of a CTB agreement would reduce the likelihood of additional proliferation is widespread within the arms control community. Most adherents argue that it would do so by changing the general climate within which future decisions about "going nuclear" would be made. More specifically, it has been suggested that by agreeing to a CTB the United States and the Soviet Union would demonstrate their good faith efforts to slow the nuclear arms race as called for by Article VI of the Non-Proliferation Treaty (NPT). In turn, implicit within this argument is the assumption that the lack of superpower arms control is and would be an important source of pressures to acquire nuclear weapons. That lack, these proponents continue, demonstrates to potential proliferators the value of nuclear weapons while engendering a predisposition to seek nuclear weapons in response to the efforts of the "nuclear haves" to preserve their monopoly.

However, agreement to a CTB by the United States, the Soviet Union, and the United Kingdom is unlikely to be seen by the "nuclear have-nots" as a sufficient fulfillment of their Article VI obligations. Without the probably unlikely significant reductions of Soviet-American strategic

* As proposed by Donald G. Brennan, the Escape Clause would nullify the ICTB once it had been determined that the treaty had failed in its purpose of "inhibiting additional proliferation." More precisely, it would serve two main purposes: "to limit the risks of a CTB if it should appear that the ban was no longer effective in inhibiting proliferation, and to increase the likelihood that it would be effective--by increasing the political deterrence of new 'proliferating' decisions by states not yet having nuclear weapons."

For Brennan's discussion, which carefully examines and assesses each of the above-listed issues, see Donald G. Brennan, "A Comprehensive Test Ban: Everybody or Nobody," International Security, Volume 1, Number 1 (Summer 1976), pp. 92-117.

forces (in the SALT), it instead might have a negative effect. In that context, a CTB could be regarded as merely a sop to LDC sensibilities. Of greater importance, as argued in detail below,* such "climate-building" efforts, designed to deemphasize gradually the role of nuclear weapons in superpower relations, may have only a modest impact upon the decisions of many near-term potential proliferators. As Hudson's earlier analysis of proliferation trends illustrated in great detail, country-specific, and in most cases regionally oriented, factors are the driving forces that might trigger a second and growing wave of proliferation.

How then might an ICTB or a CTB contribute to non-proliferation efforts? What an ICTB, and to a slightly lesser degree a CTB, might do would be to reinforce external and internal constraints confronting potential proliferators. Consider first the possible impact of an ICTB.

On the one hand, agreement upon an ICTB with an Escape Clause could be expected to increase the credibility of threatened sanctions in the eyes of potential proliferators for several reasons. Signature, but more importantly, the acceptance of a test ban agreement's costs would demonstrate the seriousness of the commitment to non-proliferation by the United States and others. In turn, given the explicit Escape Clause--triggering a global resumption of testing and terminating a hard-won agreement--countries would be aware that a nuclear-weapon test program would rock the international boat significantly. Moreover, the very process of winning internal bureaucratic acceptance of an ICTB would institutionalize a commitment to its non-proliferation objectives and create a predisposition to react strongly should those objectives be threatened. That, too, would be evident to a potential proliferator assessing the likelihood of punitive sanctions. Finally, particularly in the United States, widespread righteous indignation probably would occur if a country tested a device and shattered or eroded an ICTB. Expectations of that reaction, particularly its outraged Congressional and popular cries for retaliation, would reduce potential proliferators' temptation to bank upon the prospect that American fear of the risks and inconveniences of action would produce temporization and ultimate inaction.

Thus, one important effect of an ICTB would be to reinforce the credibility of sanctions. This might be especially so in the case of presumptive sanctions, where no legal obligation would have been violated. Depending upon the particular country, the impact of these

*See below, Part I, Section 4a.

increased external pressures would, of course, vary. But as the preceding section indicated, in certain situations the risk of sanction could be a highly significant countervailing factor.

On the other hand, the existence of an ICTB also could influence the internal politics of "going nuclear" by strengthening the position of nuclear-weapon opponents. To begin, if no existing nuclear-weapon states were still testing, proponents of a nuclear-weapon program would not be able to point to such tests to help justify their own. Particularly in countries where a relatively open internal debate would have to precede a decision to test, but to some degree even where debate involved only a limited elite group, that lack of convenient supporting justification could be handicap. Of greater importance, moreover, opponents of an overt nuclear-weapon program would be able to cite the heightened risk of significant sanctions. Where the balance of pressures and constraints was relatively equal, so strengthening the hand of opponents to nuclear weapons could tip the balance. But, as with all efforts to reinforce proliferation constraints, sufficiently strong pressures to acquire nuclear weapons nevertheless could emerge and override whatever constraints existed.

The preceding has considered how an ICTB with an explicit Escape Clause might reinforce significantly constraints upon proliferation. Would a CTB adhered to by only the United States, the Soviet Union, and Great Britain among the nuclear-weapon states have a comparable and equally strong effect?

Signature by the United States and Great Britain of even simply a CTB would symbolize their concern about proliferation and their commitment to controlling it. Similarly, winning necessary bureaucratic support probably would engender a sense of commitment upon the part of key officials. However, because others still might be testing, the degree of that commitment as well as the likelihood of a public and Congressional reaction of righteous indignation when a potential proliferator "went nuclear" would not be as great. But even then not insignificant outrage because of the costs involved for the United States could be expected. Thus, potential proliferators vulnerable to sanctions probably would have to shift upward their assessment of the risk of acquiring nuclear weapons. Furthermore, should it prove possible to win adherence to a CTB by certain key non-nuclear countries such as Canada, West Germany, and Japan--each of which is a source of significant potential non-proliferation leverage--that upward shift might be even greater. This is so because by adherence these countries would have demonstrated their seriousness of purpose and commitment to non-proliferation much as had the United States and the United Kingdom by their own signatures. Concomitantly, internal opponents to "going

"nuclear" again would be able to point to a partly heightened risk of a more costly external response.

Nonetheless, the non-proliferation influence of a CTB would be somewhat more limited than that of an ICTB. Proponents of testing could cite other on-going nuclear testing in justifying their own. In addition, although a CTB would help to reinforce the credibility of threatened sanctions, an ICTB with an Escape Clause would do so to an even greater extent. That is, confronting an ICTB, a potential proliferator would have to assess the greater risks of undoing a more far-reaching agreement, one negotiated with considerable difficulty and at considerable diplomatic expense. Particularly for presumptive sanctions, where no international obligation had been violated, the added deterrent impact could be considerable.

In evaluating the potential benefits of either a CTB or an ICTB, therefore, it is necessary to be clear about the character of those benefits. Contrary to some current beliefs, they are not to be found most importantly in a possible lessening of proliferation pressures resulting from changes in the global milieu. Rather, the main benefit of an ICTB and, to a lesser though still significant degree, of a CTB would be their reinforcement of disincentives of potential proliferators. Both increase the credibility of threats to invoke sanctions. As such, either could comprise one element within a multi-faceted non-proliferation strategy. This is not to conclude, however, that without an ICTB or CTB agreement the credibility of sanctions would prove too low for them to be effective deterrents. Such agreements represent an important means of strengthening that credibility. Suppliers' agreement to the principle of collective responsibility and upon responses to violations, American demonstration of a readiness to exert leverage upon prospective proliferators, Congressional authorizing legislation and references to such Congressional actions and restrictions by the Executive branch, and efforts to forge an internal bureaucratic consensus upon possible proliferation sanctions are other important means.

d. Focusing Prospective Proliferators Attention upon the Internal Risks of "Going Nuclear"

Should a second wave of proliferation commence, it would involve the spread of nuclear weapons to politically unstable, coup-vulnerable countries. As Table 5 reveals, nearly half of the most likely potential proliferators have experienced either an attempted or successful military seizure of power within the past decade. One additional means of

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Table 5
MILITARY INTERVENTIONS IN
POTENTIAL NTH COUNTRIES, 1958-1976*

ARGENTINA	1962(S),* 1962(S), 1962(F), 1963(F), 1963(F), 1966(S), 1971(S), 1971(F), 1971(F), 1975(F)
BRAZIL	1961(S), 1964(S)
CHILE	1973(F), 1973(S)
EGYPT	
GREECE	1967(S), 1973(F)
INDIA	
INDONESIA	1960(F), 1965(S)
IRAN	
IRAQ	1958(S), 1959(F), 1963(S), 1963(F), 1963(F), 1963(S), 1964(F), 1965(F), 1966(F), 1966(F), 1968(S), 1969(F), 1971(S), 1973(F)
ISRAEL	
ITALY	
JAPAN	
LIBYA	1969(S), 1975(F)
NIGERIA	1966(S), 1966(S), 1975(S), 1976(F)
PAKISTAN	1958(S), 1969(S), 1973(F)
PHILIPPINES	
SAUDI ARABIA	
SOUTH AFRICA	
SOUTH KOREA	1961(S), 1962(F), 1963(F)
SPAIN	
SYRIA	1961(S), 1962(S), 1962(F), 1962(S), 1963(F), 1963(S), 1963(S), 1963(F), 1966(S), 1966(F), 1968(S), 1968(S), 1968(F), 1970(S), 1971(F)
TAIWAN	
TURKEY	1960(S), 1960(S), 1962(F), 1963(F), 1971(S)
VENEZUELA	1958(S), 1961(F), 1962(F), 1962(F), 1966(F)
WEST GERMANY	
ZAIRE	1961(S), 1965(S), 1966(F)

*BASED UPON GAVIN KENNEDY, THE MILITARY IN THE
THIRD WORLD (NEW YORK: CHARLES SCRIBNER'S
SONS, 1974), PP. 337-344.

(S)=SUCCESS; (F)=FAILURE.

reinforcing proliferation constraints, therefore, would be to focus attention upon the internal risks for these countries of possessing nuclear weapons.*

That is, how access to nuclear weapons could influence political bargaining in domestic political upheavals, leading to what has been termed the "nuclear coup d'etat," could be spelled out.** Concomitantly, the difficulties of confidently assuring against unauthorized access might be conveyed. In turn, allusions to the possibility that nuclear weapons actually might be used in such a "nuclear coup d'etat"--whether intentionally, by accident, or because events became uncontrollable--might be useful. As well, other potential intensifications of internal political strike in these countries, e.g., a greater likelihood of success for small factions of military coup-makers now able to seize and utilize control of nuclear weapons, should not be left unnoted. Put simply, it should be made certain that prospective proliferators would not overlook or too readily dismiss the possibility that possession of nuclear weapons would be a continual source of domestic danger and an invitation to more extreme forms of internal political disorder.***

For making this point, both unofficial and official contacts might be desirable.**** Just as individual Americans not directly associated with the government were authorized in the early 1960s to call Soviet attention to the concept of permissive action link systems, similar persons could raise the problem of the "nuclear coup d'etat." The type of official American contacts probably would vary with the specific country

* This policy approach might be supplemented by other efforts to encourage potential proliferators to think through all of the varied risks of "going nuclear."

** For elaboration see Lewis A. Dunn, "Military Politics, Nuclear Proliferation, and the 'Nuclear Coup d'Etat,'" Hudson Institute, HI-2392/2-P, (April 20, 1976).

*** It should not be assumed that the governments of potential proliferators have thought of, let alone thought through, possibilities of the "nuclear coup d'etat." Nor should it be assumed that they would be aware of the difficulties in developing reliable mechanisms to prevent unauthorized access.

**** The following represent tentative suggestions to stimulate thinking on possible tactics. More detailed discussion of how the United States could make this point would need to draw heavily upon past State Department experience in dealing with comparable matters.

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and with the characteristics of available channels of communication. They could range from informal low-level introduction of the subject if the opportunity arose in discussions of related matters--e.g., in discussing safeguards against diversion of nuclear materials--to more direct exchanges, perhaps at higher levels. Should such official American contacts with coup-vulnerable potential proliferators be thought undesirable--some would suggest that American speculation about a nuclear coup or mutiny in, for example, Argentina or South Korea would be insufferably insulting to these countries--it might be possible, nonetheless to allude to the problem in suitable high-level public American statements on the dangers of proliferation.

What impact might efforts to stress the risk of unauthorized access and nuclearized internal conflict have upon potential proliferators? Much would depend, of course, upon the strength and characteristics of the incentives and pressures for acquiring nuclear weapons. In the presence of strong security-related incentives, such as probably would be required to trigger future overt development of nuclear weapons by South Korea, fear of these internal complications most probably would be overridden. In other cases, involving a more equal balance between security-related pressures and other constraints--perhaps exemplified by Pakistan's situation--heightened concern about unauthorized access in conjunction with other non-proliferation measures might help tip the balance in favor of not "going nuclear." Or, where moderate status-related pressures predominated, as could be the case for Argentina and Brazil, greater appreciation of the internal risks alone might prove a compelling reason for continuing to abjure possession of nuclear weapons. Thus, depending upon the particular case, the potential pay-off of efforts to highlight those domestic risks could be sizable.

4. Decreasing Pressures and Incentives for Acquisition of Nuclear Weapons

The preceding efforts to reinforce technical constraints and increase disincentives have to be complemented by equivalent efforts both to decrease existing pressures and incentives for acquisition of nuclear weapons and to prevent their emergence where presently they do not exist. In the absence of such measures, overriding pressures could emerge and tip the balance towards a decision to acquire nuclear weapons. Moreover, the legitimacy of policies designed to make it more difficult or costly for other countries--e.g., Taiwan, Iran, Pakistan, South Korea, and Israel--to "go nuclear" depends partly upon the willingness of the United States to continue supporting these countries' legitimate security requirements. But, as should become clear below, even more than efforts to reinforce technical constraints and increase disincentives, these measures raise the question of how much the United States and other countries should and will be ready to pay in the coin of possible or probable adverse impact upon other domestic, foreign, and national security policies to control proliferation.

a. Superpower Strategic Postures and Proliferation: The No-First-Use Debate and SALT

Most lists of measures to slow proliferation include references to possible changes in superpower strategic policy and postures. It has been suggested specifically that both American adoption of either a blanket no-first-use of nuclear weapons declaratory policy or a more limited renunciation of nuclear use against non-nuclear weapon states party to the NPT unless that state was engaged in armed conflict in concert with a nuclear-weapon state and accelerated Soviet-American strategic arms control would reduce significantly proliferation pressures. To examine that two-part proposition, this section first considers in some detail the no-first-use debate;* it then draws upon the arguments therein developed to evaluate the possible non-proliferation contribution of accelerated superpower strategic arms control.** It concludes that in both cases the non-proliferation value of these measures, though present, should not be overemphasized.

* No-first-use agreements have been proposed on grounds other than their putative non-proliferation effects. This section, however, examines only the non-proliferation related arguments. It sets aside the question of whether other possible benefits of no-first-use--according to some, stabilizing the central strategic balance--warrant its adoption.

** Much of the discussion of an accelerated arms control's impact may be academic unless the range of agreements likely to be acceptable to the superpowers widens considerably.

The major proliferation-related arguments for and against each of the nuclear non-use proposals are summarized in Table 6. Taking up first the inclusive no-first-use position and then the more limited renunciation, each of the preceding sets of propositions is discussed.

Blanket No-First-Use

Diffuse perceptions of the political-military utility of nuclear weapons can be expected to influence Nth country incentives for acquiring those weapons. One of several, though not equally significant, factors likely to shape such perceptions is superpower nuclear declaratory policy, particularly as evidenced by specific military postures. That is, by threatening explicitly to use nuclear weapons first and by arguing that to renounce the first-use option would erode the structure of deterrence in Europe, American policy calls attention to the possibility that in certain situations possession of nuclear weapons may be militarily and politically useful, if not central. Admittedly, specific evidence to support the belief that by so declaring the United States has enhanced potential proliferators' perceptions of nuclear weapons' utility is difficult to cite. An occasional reference within the Indian nuclear-weapon debate to the role played by NATO theater nuclear forces--and their threatened first use--in stabilizing a hostile frontier as an argument in favor of Indian acquisition of nuclear weapons may be the most to be found.* More generally, however, past experience with the global diffusion of such political and economic concepts and military fashions and trends suggests that--notwithstanding the paucity of "hard" evidence--the manner in which the United States talks about nuclear weapons can influence the thinking of potential proliferators, particularly those without an indigenous tradition of and capability for military analysis.**

Nonetheless, if it is necessary to conclude that American nuclear declaratory policy's impact may not be negligible, it is equally important to avoid exaggerating its influence. Two other factors may be

* See K. Subrahmanyam, "India: Keeping the Option Open" in Nuclear Proliferation Phase II, Robert M. Lawrence and Joel Larus (eds.) (Lawrence: University Press of Kansas, 1974), pp. 123-124.

** The recent reference within the Yugoslav Communist Party newspaper Borba to the possible benefits "of 'mini-nuclear' weapons" as a deterrent to invasion serves perhaps to illustrate this process of diffusion. Borba, 7 December 1975, reprinted in Survival (May/June 1976), p. 117.

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Table 6
NO-FIRST-USE ISSUES

BLANKET NO-FIRST-USE

FOR

AGAINST

DIFFUSE IMPACT UPON PERCEPTIONS OF NUCLEAR WEAPONS' UTILITY

REDUCE PROLIFERATION INCENTIVES
BY CHANGING PERCEPTIONS OF THE
POLITICAL-MILITARY UTILITY OF
POSSESSING NUCLEAR WEAPONS

IMPACT OF U.S. DECLARATORY
POLICY UPON OTHER COUNTRIES'
PERCEPTIONS OF NUCLEAR WEAPONS'
UTILITY NEGIGIBLE

IMPACT UPON KEY U.S. ALLIES' PROLIFERATION INCENTIVES

FOSTER INCREASED CONVENTIONAL
DEFENSE EFFORTS BY U.S. ALLIES
AND NOT DECISION TO "GO NUCLEAR"

INCREASED CONVENTIONAL DEFENSE
EFFORTS UNLIKELY DUE TO DOMESTIC
POLITICAL FACTORS AND DESIRE FOR
DETERRENCE NOT DEFENSE
WOULD INCREASE PROLIFERATION
INCENTIVES OF CRITICAL U.S.
ALLIES BY ERODING PRESENT DETER-
RENT STRUCTURE

IMPACT UPON THE INTERNAL POLITICS OF "GOING NUCLEAR"

STRENGTHEN HAND OF INTERNAL
OPPONENTS OF "GOING NUCLEAR"
BY ALLOWING THEM TO CITE
EFFORTS BY NUCLEAR-WEAPON
STATES TO REDUCE ROLE OF
NUCLEAR WEAPONS IN WORLD
POLITICS

PRESUPPOSES SOVIET ADHERENCE
TO NO-FIRST-USE POSTURE (UN-
LIKELY)
DOMESTIC DEBATE DEPENDENT
UPON COUNTRY-SPECIFIC FACTORS
AND NOT UPON "CLIMATE-BUILDING"
ACTIONS BY NUCLEAR-WEAPON STATES

LIMITED NUCLEAR NON-USE

FOR

AGAINST

IMPACT UPON PRESSURES FOR NUCLEAR WEAPONS WITHIN NON-NPT PARTIES

REDUCE PRESSURES TO ACQUIRE
NUCLEAR WEAPONS AND PROVIDE
INCENTIVE FOR NPT ADHERENCE

CRITICAL DETERMINANT OF DECI-
SION TO "GO NUCLEAR" NOT FEAR
OF SUPERPOWERS BUT CONCERN
ABOUT NUCLEAR-WEAPON AMBITIONS
OF NEIGHBORING STATES

ADEQUACY OF THE "IN CONCERT" EXCEPTION CLAUSE

EXCEPTION CLAUSE SUFFICIENT TO
AVOID DANGERS OF BLANKET NO-
FIRST-USE DECLARATION BY U.S.

TOO AMBIGUOUS

even more significant determinants of potential Nth country perceptions of nuclear weapons' utility. On the one hand, those perceptions probably would be influenced heavily by the country's specific politico-military environment and by its assessment of the role for nuclear weapons in meeting perceived security threats within that environment. To illustrate, in the late 1950s and early 1960s, Swedish defense planners seriously debated whether to acquire nuclear weapons. Their debate focused upon the likely characteristics of a European conflict, the factors that would lead either side to violate Swedish neutrality, and the consequences for Sweden of battlefield use of nuclear weapons. Ultimately, it was concluded that Sweden's ability to preserve its neutrality in such a future European conflict would not have been strengthened by possession of theater nuclear weapons.*

On the other hand, the most important determinant of existing general perceptions of the utility of possessing nuclear weapons probably remains the fact that both in Korea and in Vietnam the United States did not use these weapons. Concomitantly, as for future perceptions of their utility, those perceptions would be influenced significantly by the characteristics and consequences of the first use of nuclear weapons in a proliferating world. Were it a nuclear-weapon accident--especially if no other country but the possessor was affected--or an internal unauthorized use in the midst of a domestic civil war or military coup d'etat, many potential proliferators undoubtedly would think again about whether they "really" wanted nuclear weapons. In turn, a comparable dampening effect upon proliferation incentives, resulting from altered perceptions of the potential costs and benefits of possessing nuclear weapons, could be expected if the first new nuclear-weapon state to use or threaten to use nuclear weapons in a local conflict fared very badly. Conversely, if that state achieved important military and political gains, especially if with only a few weapons, the perceived utility of nuclear weapons, and other countries' incentives for their acquisition, would increase markedly.

Two brief final points concerning the claimed influence upon diffuse perceptions of nuclear weapons' utility of an American blanket no-first-use declaratory policy should be made. First, such a policy would have little impact upon perceptions of nuclear weapons' deterrent

* See Jan Pravitz, "Sweden--A Non-Nuclear Weapon State" in Security, Order, and the Bomb, Johan Jorgen Holst (ed.) (Oslo: Universitets Forlaget, 1972), pp. 61-73.

value vis-a-vis other nuclear-weapon states. But for many of the most important potential proliferators, the decision to "go nuclear," if taken, is likely to result from the fear that without such weapons they would be unable to deter nuclear blackmail or even nuclear attack by a local nuclear rival. India, Iran, Pakistan, and Taiwan all are possible cases in point. Second, American declaratory policy cannot change the fact that nuclear weapons are qualitatively different from other weapons. In that difference various countries can be expected to see a means of symbolically claiming greater regional and international status and influence. Thus, for these reasons as well, the positive impact of changed American nuclear declaratory policy on diffuse perceptions of the benefits of "going nuclear" must not be overstated.

To evaluate the non-proliferation value of an American blanket no-first-use declaratory policy, its possible impact upon the proliferation incentives of American allies also has to be considered. That impact, however, cannot be assessed in the abstract, but needs to be weighed separately for each major ally in light of its particular balance of incentives and disincentives for acquisition of nuclear weapons.

Turning first to Western Europe, there is virtually no evidence to support the contention that the allied response would be so to augment their conventional defense capabilities that NATO clearly could contain a full Soviet assault without recourse to theater nuclear weapons. To begin, domestic political constraints severely limit the extent to which European governments would be willing to reallocate resources to building-up their conventional forces. Moreover, in the West German case, these domestic political constraints would be exacerbated by concern about both reinforcing emerging fears of German domination and triggering a hostile political response by its neighbors should the German Army become still larger in comparison with those of its European allies. Furthermore, such European political reluctance would be legitimized by their belief that the key to successful deterrence in Europe is the risk of nuclear escalation. That is, to Europeans, a conventional force build-up of the magnitude proposed not only would be politically unpalatable but also would be thought to increase the risk of that destructive large-scale conflict they want to avoid. Increased conventional defense efforts, therefore, are a highly unlikely outcome.

In contrast, American adoption of a blanket no-first-use posture probably would foster growing pressures upon West Germany to acquire nuclear weapons. As West German spokesmen themselves have noted, their country's decision to renounce the acquisition of nuclear weapons is linked to the American nuclear guarantee, including its threatened first use of nuclear weapons in a European conflict. However, West German fear of a hostile, conceivably military, response by the Soviet

Union would be an important countervailing constraint. Initially, therefore, the West German response to changed American nuclear declaratory policy might well be limited to efforts to shorten the lead-time between a decision to "go nuclear" and the existence-in-being of a "serious" nuclear force. In addition to covert non-nuclear preparations at home, e.g., high explosive lens testing, West Germany also could seek to reduce that lead-time by covert cooperation with one or another potential or emerging nuclear-weapon state.* If it then proved impossible to incorporate such West German activities within the framework of a European nuclear force, thus managing the underlying pressures resulting from reduced alliance credibility, emergence of an independent West German nuclear force by the late 1980s would be a not unlikely outcome.

The probable European-related destabilizing effects of American adoption of a blanket no-first-use policy, moreover, extend beyond its potential impact upon West German nuclear-weapon policy. Given existing linkages, West German acquisition of nuclear weapons can be expected to increase proliferation pressures within other European countries such as Italy, Spain, and eventually even Sweden and Switzerland as well as within Japan. In turn, that West German decision at the very least would erode the non-proliferation regime--one main purpose of which has been to preclude a West German nuclear-weapon capability--and might even trigger its collapse. Furthermore, within Western Europe, West Germany's emergence as a nuclear-weapon power probably would increase political tensions and hinder cooperation among the EEC countries. These spillover effects provide additional reasons for fearing that an American blanket no-first-use position could be a source of growing disorder and not order,** and must be weighed against that possible positive impact upon diffuse Nth country perceptions of nuclear weapons' utility already noted.

Turning to Asia, the likely impact upon American allies of adoption of the proposed blanket no-first-use position appears mixed. Preventing

* In that regard, both rumored unofficial or semi-official West German cooperation with and assistance to the South African uranium enrichment program and the prospect of future extensive West German-Brazilian and West German-Iranian nuclear linkages--within which to initiate and obscure covert cooperation--are not to be overlooked. For more detailed discussion of this possibility, see Dunn and Kahn, pp. 48-50.

** Whether a blanket no-first-use position joined to a mode of enforcing that rule of nuclear behavior could become a means of order in a proliferated world is a different question. It is addressed below. See Part II, Section 2.

the growth of pressures upon Japan to acquire nuclear weapons depends largely, though not exclusively, upon the continued maintenance of the Japanese-American security connection's vitality and credibility. But in contrast to Europe, the most plausible direct security threats confronting Japan probably can be managed without reliance upon the threat of nuclear first use. Nor does the mention of no-first-use trigger a hostile reaction among Japanese officials comparable to that of European officials. Therefore, if adopted after suitable consultation with the Japanese and accompanied by other demonstrations of continuing American support, such an American nuclear declaratory policy in itself might affect only marginally Japanese perceptions of their security framework's adequacy. Whatever slight increase in pressures to "go nuclear" might occur probably would be more than counterbalanced by a variety of strong constraining factors. These range from confirmed domestic opposition to the fear of hostile political-economic reaction by other countries and include the belief that development of a credible, militarily useful nuclear force exceeds Japan's near-term capabilities.

But, although changed American nuclear declaratory policy might have only limited direct and immediate impact upon Japan, the possible longer-term repercussions should that new policy eventually result in South Korean and West German decisions to "go nuclear" might appear more troublesome. Those decisions could be expected to increase somewhat status-related incentives for Japanese acquisition of nuclear weapons. More importantly, West Germany's actions would modify fundamentally the environment of any future Japanese nuclear-weapon debate. Currently powerful self-imposed psychological restrictions, stemming from defeat in World War II, probably would lose much of their force once Germany--the other major "guilty" party--had renounced these special constraints. Within this changed environment, should a security shock occur it might well overcome the remaining disincentives and trigger a Japanese decision to acquire nuclear weapons. However, it should be noted explicitly that even within the preceding train of events, the impact upon Japan of the proposed shift to blanket no-first-use alone would not be determinative of Japanese nuclear-weapon policy. In the absence of the postulated strong security shock--which that American policy shift is unlikely to constitute--the relative balance of incentives and disincentives probably would continue to favor nuclear abstention.

As for South Korea, an American shift to no-first-use, coupled to withdrawal of nuclear weapons from Korea, could reinforce somewhat South Korean incentives to acquire nuclear weapons. That said, it still is necessary to ask whether the ensuing debate definitely would result in a decision to launch an overt nuclear-weapon program. One of the most important disincentives to such a program would be the continuing fear of triggering complete American decoupling. If so, future South Korean

nuclear-weapon policy may depend partly upon whether the United States could assure the South Koreans that the basic American commitment to support its security had not been altered, even if the means of fulfilling that commitment had been partially changed. Even with that assurance, however, it might not be possible to dissuade the South Koreans from moving covertly towards at least a nuclear-weapon option as a hedge against still further American policy shifts.

To sum up, depending upon the ally, the impact of an American blanket no-first-use position upon proliferation incentives and choices would appear to vary. Over the near-term, especially in Japan, and to a lesser degree in South Korea, somewhat increased pressures to acquire nuclear weapons probably still would be outweighed by existing constraints. But in the most important case--that of West Germany--such declaratory policy change probably could increase significantly the likelihood of both covert nuclear-weapon preparations and an eventual West German decision to develop a nuclear force of its own. Not only would that result run directly counter to the non-proliferation goals of the advocates of no-first-use, but also it could be expected to contribute in other ways to regional and global disorder and not order. This key risk must be weighed against the prospective desirable impact of a blanket no-first-use policy upon diffuse proliferation incentives and the global "nuclear climate" in evaluating this policy proposal.

Within some, if not many, potential proliferators, the balance of incentives and disincentives for acquiring nuclear weapons may be relatively close. For example, that situation probably could characterize future debates within such so-called critical countries as Pakistan, Taiwan, Argentina, Brazil, and Israel, as well as within other countries. According to its advocates, American adoption of a blanket no-first-use position would influence the internal politics of "going nuclear" of such countries by strengthening the hand of domestic opponents to an overt nuclear-weapon program. It would do so, they argue, by allowing those opponents to point to superpower efforts to reduce the role of nuclear weapons in world politics. Implicit in this argument is the proposition that the continued lack of superpower efforts to "slow the nuclear arms race" as called for by Article VI of the Non-Proliferation Treaty and the existence of a global climate legitimizing nuclear weapons are and would remain important factors contributing to decisions to "go nuclear." Focusing only upon the influence of a unilateral American declaration--because, as the critics note, a comparable Soviet declaration appears unlikely--how much support such a declaration would provide domestic nuclear-weapon opponents has to be questioned.

Even a cursory examination of the Indian nuclear-weapon debate of the 1960s and early 1970s suggests that the proponents of "going nuclear" in other countries are likely to appeal rhetorically to the lack of superpower nuclear arms control and the discriminatory nature of the NPT regime as one means of legitimizing their position.* Articulated as the first step towards a nuclear deemphasis policy, a blanket no-first-use declaration by the United States probably would make it more difficult for those nuclear-weapon proponents to take that rhetorical stance. Conversely, their opponents then could argue that at least one of the superpowers was beginning to take seriously its obligations to reduce the role of nuclear weapons in world politics. Nonetheless, within the overall framework of these countries' nuclear-weapon decisions, the impact of a no-first-use declaration appears likely to be of only marginal positive influence. More specifically, if these countries are examined more closely, of greater importance in their possible decisions to "go nuclear" would be such country-specific incentives as perceived security needs, regional competition for influence, concerns about neighboring countries' nuclear-weapon ambitions, and internal bureaucratic and political rationales and such equally particular disincentives as cost, feared loss of access to advanced nuclear technology, possible adverse reactions of other countries, and limited capabilities.** The closeness of the debate most probably will have more to do with the interaction of these specific pressures and constraints than with diffuse perceptions of superpower efforts to deemphasize nuclear weapons. At best, a global political environment characterized by decreasing superpower emphasis upon nuclear weapons might hinder somewhat, but in all probability would not preclude, most decisions to acquire nuclear weapons.

In summary, American adoption of a blanket no-first-use position probably would have a limited positive non-proliferation impact on both diffuse perceptions of nuclear weapons' utility and the domestic constraints upon a decision to acquire nuclear weapons. But the degree of impact must not be exaggerated and could be outweighed in many cases by more country-specific factors. More important, against that positive effect has to be balanced the risk of increasing near-term pressures for proliferation within West Germany and disorder in Europe. Directly contradicting the proposed purpose of such a declaratory policy, that could be too high a price to pay. Even so, it still might be feasible at

* See Subrahmanyam, op. cit., pp. 137-138.

** The argument that a blanket no-first-use doctrine would critically shape perceptions of whether nuclear weapons would serve the country-specific purposes just noted has been discussed above.

least to temper official American references to possible first-use of nuclear weapons, to avoid exacerbating the situation by explicit statements emphasizing the positive role of nuclear weapons in American national security policy.*

Limited Nuclear Non-Use

With its proposed "escape clause" designed primarily to avert any erosion of the NATO structure of deterrence, the limited nuclear non-use position would renounce nuclear use against non-nuclear-weapon states party to the NPT. Proponents of that more limited shift of American nuclear declaratory policy suggest that it would reduce pressures upon non-NPT-parties to acquire nuclear weapons and provide an incentive for adherence to the NPT. Others partly disagree, arguing that country-specific regional security-related pressures would be unaffected by such a declaration and that those factors are the more important determinants of reluctance to disavow acquisition of nuclear weapons.

To assess the relative validity of these contending points of view it may be useful to look briefly at particular countries. Table 7, derived from our earlier report, summarizes proliferation pressures and notes possible triggering events for a set of key non-NPT parties that under certain conditions might decide to seek a nuclear-weapon capability. In virtually all cases, the pressures for doing so appear unlikely to be influenced directly by the declaration of non-use against such countries. For example, in many cases the critical pressures would be the desire to deter a nuclear-armed regional opponent or to strengthen one's regional influence. Concomitantly, in other cases important internal pressures, whether scientific-bureaucratic momentum or a concern to strengthen domestic morale, appear likely to be involved. In turn, the nuclearization of neighboring countries can be expected to be a significant triggering event. None of the preceding would be affected directly by a unilateral, or even a joint Soviet-American, promise not to threaten or use nuclear weapons against these countries.

India's case, however, may be a partial exception. That is, among the rationales for an Indian nuclear-weapon program has been the risk of outside American intervention in the affairs of the sub-continent. Moreover, it has been suggested that the final decision to detonate a nuclear-explosive device was taken in 1971 after the war with Pakistan

*This would be, for example, one argument against shifting to a "mini-nuke" theater nuclear force posture for NATO.

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Table 7
SELECTED NON-NPT PARTIES:
POSSIBLE PRESSURES FOR AND TRIGGERS TO A
DECISION TO ACQUIRE NUCLEAR WEAPONS*

	POTENTIAL UNDERLYING PRESSURES OR REASONS	POSSIBLE TRIGGERING EVENTS
ARGENTINA	QUEST FOR REGIONAL STATUS AND INFLUENCE; STRENGTHEN DOMESTIC MORALE; PRESSURES FROM MILITARY	FOREIGN CRISIS; DOMESTIC CRISIS; NUCLEARIZATION OF OTHER COUNTRIES
BRAZIL	QUEST FOR REGIONAL AND GLOBAL STATUS AND INFLUENCE; PRESSURES FROM MILITARY	NUCLEARIZATION OF OTHER COUNTRIES; CHANGED PERCEPTIONS OF NUCLEAR WEAPONS' UTILITY (AS SOURCE OF STATUS AND INFLUENCE)
EGYPT	DETERRENCE OF NUCLEAR RIVAL; BUTTRESS TO BARGAINING POSITION; QUEST FOR REGIONAL STATUS AND INFLUENCE; STRENGTHEN DOMESTIC MORALE	NUCLEARIZATION OF OTHER COUNTRIES; INCREASED AVAILABILITY OF NECESSARY INPUTS
INDIA	DETERRENCE OF NUCLEAR RIVAL; BUTTRESS TO BARGAINING POSITION; QUEST FOR STATUS AND INFLUENCE; STRENGTHEN DOMESTIC MORALE; SCIENTIFIC MOMENTUM	NUCLEARIZATION OF OTHER COUNTRIES; DOMESTIC OR FOREIGN CRISIS; WEAKENING OF INTERNATIONAL CONSTRAINTS
INDONESIA	DIVERSION OF DOMESTIC ATTENTION; QUEST FOR REGIONAL STATUS; FASHION	DOMESTIC CRISIS; NUCLEARIZATION OF OTHER COUNTRIES
ISRAEL	DETERRENCE OF NUCLEAR RIVAL; DEFENSE AGAINST INVASION; BUTTRESS TO BARGAINING POSITION; WEAPON OF LAST RESORT	REDUCTION OF ALLIANCE CREDIBILITY; NUCLEARIZATION OF OTHER COUNTRIES; FOREIGN CRISIS
PAKISTAN	DETERRENCE OF NUCLEAR RIVAL; DEFENSE AGAINST INVASION; BUTTRESS TO BARGAINING POSITION; STRENGTHEN DOMESTIC MORALE	NUCLEARIZATION OF OTHER COUNTRIES; FOREIGN CRISIS; INCREASED AVAILABILITY OF NECESSARY RESOURCES
SAUDI ARABIA	DETERRENCE OF A NUCLEAR RIVAL; WEAPON OF LAST RESORT; BUTTRESS TO BARGAINING POSITION; QUEST FOR REGIONAL INFLUENCE	NUCLEARIZATION OF OTHER COUNTRIES; INCREASED AVAILABILITY OF NECESSARY INPUTS
SOUTH AFRICA	DEMONSTRATE NATIONAL VIABILITY; QUEST FOR GLOBAL STATUS; STRENGTHEN DOMESTIC MORALE	FOREIGN OR DOMESTIC CRISIS; NUCLEARIZATION OF OTHER COUNTRIES; CHANGED PERCEPTION OF NUCLEAR WEAPONS' UTILITY (AS SOURCE OF STATUS)
SPAIN	FASHION; DEMONSTRATE NEW NATIONAL VITALITY	LEADERSHIP CHANGE, NUCLEARIZATION OF OTHER COUNTRIES; BREAKDOWN OF INTERNATIONAL CONSTRAINTS
TURKEY	INTIMIDATE NON-NUCLEAR RIVAL; QUEST FOR REGIONAL STATUS AND INFLUENCE; FASHION	INCREASED AVAILABILITY OF NECESSARY INPUTS; NUCLEARIZATION OF OTHER COUNTRIES

* DERIVED FROM LEWIS A. DUNN AND HERMAN KAHN, TRENDS IN NUCLEAR PROLIFERATION, 1975-1995 (HUDSON INSTITUTE, HI-2336/3-RR, MAY 15, 1976).

and the American decision to send the Enterprise into the Indian Ocean.* Nevertheless, the possible influence of this factor should not be overstated. Clearly, as the chart indicates, other, and probably more compelling, pressures for the gradual evolution of India's nuclear-weapon option into a full-fledged program exist as well.

It could be argued in response that the preceding discussion of incentives on the part of non-NPT parties to acquire nuclear weapons, though superficially correct, misses the extent to which the lack of such a limited non-use position indirectly fosters the prior assumption that acquiring nuclear weapons would serve regional security or influence goals. As proposed earlier, in discussing the inclusive no-first-use position, American nuclear declaratory policy is one of several factors influencing perceptions of the utility of nuclear weapons. But it is, to repeat, only one factor, and probably not the most critical one.

Even so, American adoption of such a nuclear declaratory policy renouncing nuclear use against non-nuclear-weapon states party to the NPT and not acting in concert with nuclear-weapon-states may be warranted. Doing so would meet a continuing demand of these non-nuclear-weapon states and in some cases could influence at the margin future debates about "going nuclear." In addition, such a limited renunciation could represent an initial step in the direction proposed above of a tempered American nuclear declaratory policy.

As in the case of a blanket no-first-use policy much depends upon the balance of possible benefits and risks. In contrast with that case, however, the balance appears to permit a limited change in American nuclear declaratory policy. That is, the concern about the possible ambiguity of the exception to that position, i.e., the phrase "unless engaged in armed conflict in concert with a nuclear-armed state," appears an overstatement. In theory some ambiguity may exist, particularly if questions such as whether a North Korean invasion of South Korea supported by Chinese "volunteers" would fall within its purview are asked. Nonetheless, in practice that exception should be sufficient to serve its primary purpose of continuing to hold open the possible use of nuclear weapons against targets in Eastern Europe in the event of a European conflict. More importantly, it is so perceived by those very Europeans who would be concerned about United States adoption of an unqualified no-first-use position.

*See Ashok Kapur, "Domestic Politics, World Politics, and India's Nuclear Behavior" (mimeo).

An Afterward on SALT

Several of the preceding arguments also apply to evaluation of the impact of accelerated Soviet-American arms control upon proliferation incentives. As with either nuclear non-use variant, potential proliferators' perceptions of the utility of possessing nuclear weapons are likely to be influenced more significantly by elements within their country-specific politico-military environments and, if it occurs, by the characteristics and consequences of the first use of nuclear weapons since Nagasaki. To illustrate, consider the countries listed in Table 8. In each case a decision to develop nuclear weapons, if made, would result to the largest degree from perceived regional security, influence, or status requirements. Furthermore, even though several of these countries, and India in particular, have referred to the unequal obligations of the NPT and have called upon the superpowers to live up to their Article VI obligations, compelling evidence is lacking that such superpower actions would defuse possible incentives to acquire nuclear weapons, for example, in India, Taiwan, South Korea, Israel, Pakistan, and Libya or decisively slow their emergence in the others.

Regarding the politics of "going nuclear," a SALT agreement involving sufficiently substantial reductions to justify the claim that the superpowers were seeking to denuclearize world politics--which in any case will not emerge from SALT II--would remove one rhetorical argument from the arsenal of nuclear-weapon proponents. But again referring to the preceding table, arguments about country-specific incentives and disincentives are at the core of the debate in each country. And, to repeat, if these specific factors are examined, there appears to be at best only a marginal linkage between these countries' inclination to acquire nuclear weapons and the SALT process. Furthermore, a sufficient level of superpower arms reductions to justify references to a nuclear deemphasis could lower the obstacles to some countries' development of a militarily serious nuclear force and in so doing perhaps even decrease technical constraints upon an eventual decision by them to acquire nuclear weapons.*

To sum up, granting the need to influence the perceived utility of possessing nuclear weapons, neither a blanket no-first-use agreement nor superpower arms reductions appear likely to have a highly significant impact upon those perceptions. As for a limited non-use declaration,

* This point assumes that some potential proliferators would want nuclear forces capable of targeting the Soviet Union or the United States. That assumption could apply to Japan and West Germany and perhaps India, Iran, and Brazil.

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Table 8

Critical Potential Nth Countries: Possible Reasons, Constraints, and Triggering Events

Country	Potential Underlying Pressures or Reasons ^a	Most Critical Constraints	Possible Triggering Events
Argentina	Quest for regional status and influence; strengthen domestic morale; pressures from military	Risk of unauthorized seizure; reaction of regional opponents	Foreign crisis; domestic crisis; nuclearization of other countries
Brazil	Quest for regional and global status and influence; pressures from military	Risk of unauthorized seizure; dependence on foreign nuclear inputs	Nuclearization of other countries; changed perceptions of nuclear weapons' utility (as source of status and influence)
India	Deterrence of nuclear rival; buttress to bargaining position; quest for status and influence; strengthen domestic morale; scientific momentum	Reaction of other countries; dependence on foreign nuclear inputs	Nuclearization of other countries; domestic or foreign crisis; weakening of international constraints
Iran	Deterrence of nuclear rival; defense against invasion; buttress to bargaining position; quest for regional and global status and influence	Dependence on foreign nuclear inputs; reaction of allies and opponents	Nuclearization of other countries; weakening or breakdown of international constraints; foreign crisis
Israel	Deterrence of nuclear rival; defense against invasion; buttress to bargaining position; weapon of last resort	Reaction of regional opponents, allies, and other nations	Reduction of alliance credibility; nuclearization of other countries; foreign crisis
Japan	Deterrence of a nuclear rival; buttress to bargaining position; quest for global status and influence	Domestic public opposition; problems developing credible nuclear strategy; dependence on foreign inputs; reaction of other countries	Reduction of alliance credibility; domestic political change; foreign crisis; nuclearization of other countries
Libya	Buttress to bargaining position; nuclear intimidation of non-nuclear rivals; quest for regional status and influence	Limited technological and industrial base; reaction of opponents	Increased availability of necessary inputs
Pakistan	Deterrence of nuclear rival; defense against invasion; buttress to bargaining position; strengthen domestic morale	Cost; limited technological and industrial base; reaction of regional opponent	Nuclearization of other countries; foreign crisis; increased availability of necessary resources
South Korea	Defense against invasion; deterrence of nuclear rival; intimidate non-nuclear rival	Reaction of allies and regional opponents; dependence on foreign nuclear inputs	Reduction of alliance credibility; weakening or breakdown of international constraints
Taiwan	Defense against invasion; buttress to bargaining position; demonstrate national viability; strengthen domestic morale	Dependence on foreign nuclear inputs; reaction of allies and other countries	Reduction of alliance credibility
West Germany	Deterrence of nuclear rival; buttress to bargaining position	Reaction of opponents and of allies; domestic opposition	Reduction of alliance credibility; weakening or breakdown of international constraints; foreign crisis; nuclearization of other countries

^aFor certain countries the overt emergence of particular pressures or reasons would depend upon international and domestic changes such as are discussed in Section II. Thus, some potential pressures or reasons may well remain latent until, if ever, those changes occur.

its influence might be marginal but so would be the costs of adopting it in response to the urgings of non-nuclear-weapon states. Thus, beyond tempering American nuclear declaratory policy, efforts might better focused upon defusing country-specific pressures and incentives for acquiring nuclear weapons and contingency planning to influence the outcome of a possible first use of nuclear weapons since Nagasaki. The former is discussed next; the latter is considered within the final section concerned with responses to proliferation turning-points or dramatic events.

b. American Alliances, Security Guarantees, and Checking Widespread Proliferation

Among the most important driving forces of possible future proliferation identified within Hudson's earlier report was a continuing intensification of security-related pressures.* In particular, the adverse impact of an erosion of American alliance credibility was emphasized.

That impact is strikingly illustrated by Table 9, one of the "alternative proliferation projections" developed in our earlier study, which follows. Late-1970s-early 1980s erosion of American security guarantees is portrayed as leading to decisions by Taiwan, South Korea, Israel, Japan, and West Germany to commence overt nuclear weapon programs.** Concomitantly, partly underlying Pakistan's response to Indian actions--according to this projection--is a belief, dating from the mid-1960s, that the CENTO Alliance provided an inadequate guarantee against a nuclear-armed India.

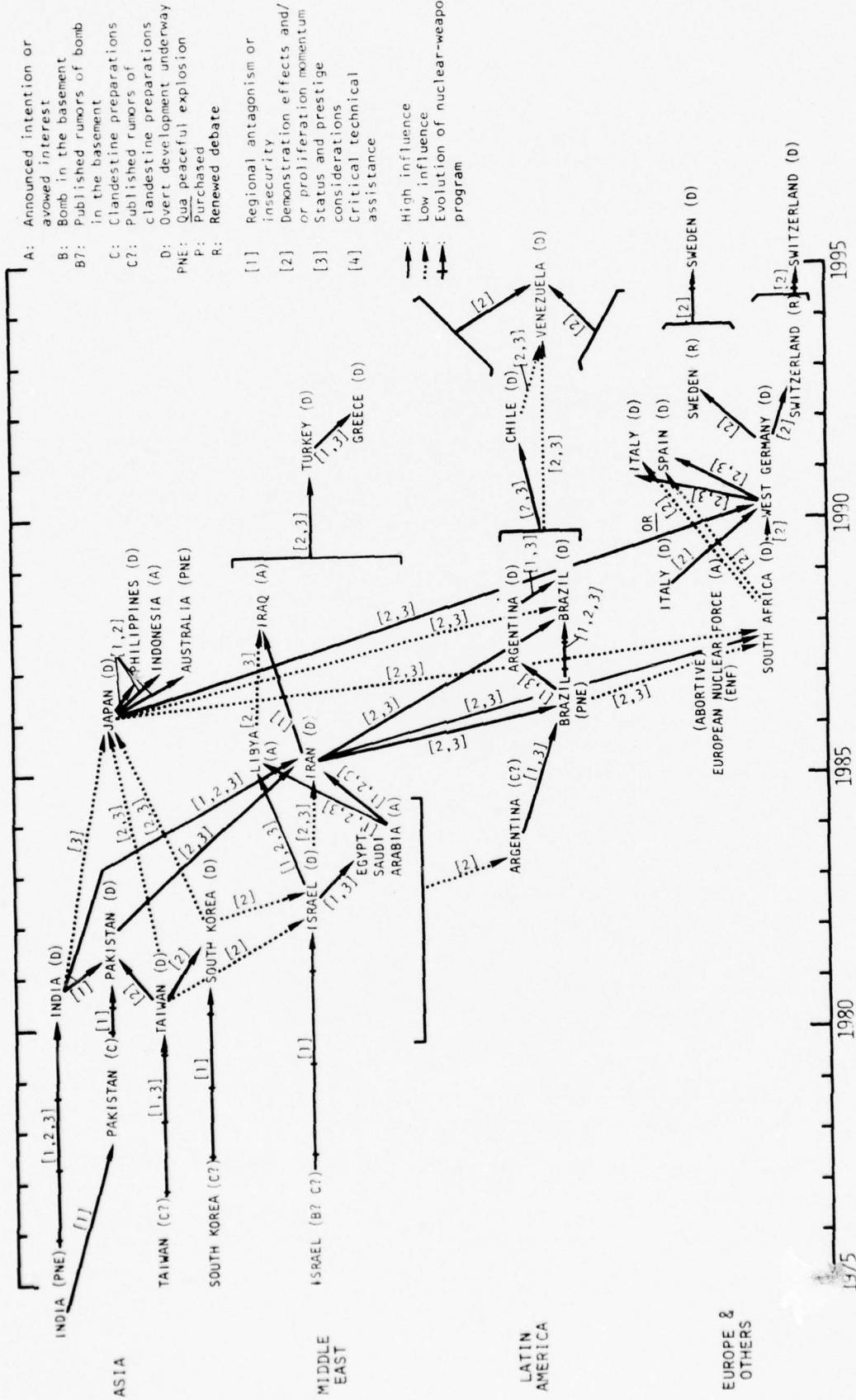
In turn, these countries' decisions to acquire nuclear weapons influence various other countries' proliferation decisions. For example, Japan's decision creates or reinforces strongly security-related pressures in the Philippines, Indonesia, and Australia; it also removes an important constraint upon West Germany by eroding whatever remaining vestiges of World War II guilt and associated self-imposed psychological restrictions that still existed. Or, consider the case of Taiwan and South Korea. As depicted by this projection, status and prestige considerations linking them with Japan help to foster a climate within

* Dunn and Kahn, op. cit., esp. pp. 45-58.

** For an explanation of the factors at work in each country, see Dunn and Kahn, op. cit., pp. 45-58.

LATE 1980S--EARLY 1990S PROLIFERATION

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which an ensuing security shock triggers a Japanese decision to acquire nuclear weapons. Similarly, Israel's decision to become an overt nuclear-weapon state--due to heightened concern in the early 1980s about the residual credibility of a security guarantee already weakened by prior American decoupling from Taiwan and South Korea--triggers overt nuclearization of the Middle East. More generally, each of these allies' decisions increases proliferation momentum--the belief that widespread proliferation is inevitable--and reinforces proliferation pressures in other countries to which direct linkages are lacking. Argentina's decision, for example, to jump the gun on Brazil is depicted as influenced partly by growing proliferation in Asia and the Middle East.

Thus, the erosion of American alliances, should it occur, can be expected to have not only a significant direct impact upon proliferation's scope but also an indirect one because of the preceding multiplier effects. At least preservation, if not strengthening, of existing American security guarantees and ties to Japan, West Germany, South Korea, Taiwan, and Israel clearly comprise, therefore, an especially valuable anti-proliferation measure. But, particularly when applied to South Korea, Taiwan, and, to a somewhat lesser degree, Israel, this requirement clashes with other perceived American interests.*

Taking up the South Korean case first, growing pressures both to remove American theater nuclear weapons from South Korea and to withdraw American troops are emerging. To do both might well trigger a South Korean nuclear-weapon decision. However, because there is reason to believe that the South Korean government places greater value upon the presence of American troops--and the linkages to American support inherent therein--than upon the threat of nuclear use, it might be feasible to remove the latter without producing an adverse proliferation outcome. American officials could argue convincingly that although the means of fulfilling the American commitment had been partly modified, the basic structure of commitment remained. If made, a decision to adopt that alternative to complete withdrawal would be based upon the proposition that reducing the likelihood of a South Korean decision to "go nuclear" and avoiding possible resultant instability on the Korean peninsula--either of which could have adverse repercussions within Japan--outweighed the American interest in escaping the risk of involvement in another Asian conflict or putative "larger interests" in refusing support to repressive foreign governments.

* American alliance ties to West Germany and Japan also entail the acceptance of various costs and risks. But in these cases, these costs and risks have not been deemed out of proportion to the interests at stake and pressures to decouple are not presently foreseeable.

Taiwan's situation raises comparable tensions. Unless Peking can be induced to alter its position--which may be unlikely--continuation of strong American security and political ties to Taiwan, let alone the 1954 Mutual Security Treaty, directly conflict with American efforts to normalize relations with the PRC. But, if the emergence of overriding pressures within Taiwan to develop nuclear weapons are to be prevented, it will be necessary to maintain such ties in some form. One possibility suggested recently would combine a unilateral American guarantee of Taiwan's autonomy with continued supply of conventional arms.* Others undoubtedly can be devised and analyzed. The basic point is that here, too, controlling proliferation may have to be balanced against other policy objectives.

Israel's case illustrates a different sort of tension. From the Israeli perspective, a critical aspect of their security tie with the United States is American readiness to continue supplying late-model conventional arms. Given assured supply, enabling Israel to handle expected security threats with conventional means, pressures to deploy a nuclear force probably would remain subdued. But, by supplying such weapons, the United States may be helping to fuel an increasingly unstable regional conventional arms race. That is, with the continued deployment on both sides of longer range weapon-systems, and a growing premium upon being able to strike the first blow, significant conventional preemptive instabilities could characterize the Arab-Israeli balance.** Once again, the potential cost in other than non-proliferation policies is evident.

In each of the preceding situations, as was the case for possible proliferation sanctions, the need to balance both alternative risks and conflicting interests cannot be avoided. But, given the dangers of a proliferated world delineated earlier, the above-listed costs or risks associated with preserving American alliance or comparable guarantees may have to be accepted. To do otherwise at best might generate growing pressures within these three countries for independent nuclear forces and at worst, taking account of the multiplier effect, set in motion an expanding process of global proliferation.

Given the non-proliferation impact of American security guarantees, can comparable guarantees be extended to other prospective proliferators

* The New York Times, "Editorial," September 7, 1976.

** See Robert J. Pranger and Dale R. Tahtinen, Implications of the 1976 Arab-Israeli Military Status (Washington, D.C.: American Enterprise Institute, 1976).

not closely tied to the United States but also confronting security-related pressures for acquiring nuclear weapons?* Provision of such guarantees was one issue raised at the NPT Review Conference. If politically and technically feasible, credible guarantees against nuclear blackmail or nuclear attack, whether provided by the United States or the United States and the Soviet Union, probably would reduce proliferation pressures within such countries. Nonetheless, serious questions must be raised about the international credibility and domestic palatability of security guarantees where long-standing historical and cultural ties--as with NATO--clearly perceived "vital" security interests--as with Japan--or indirect importance for the protection of such a vital interest--as in South Korea and Taiwan--are lacking. As Pakistan's experience in two wars with India demonstrated, where such factors are absent, a security guarantee is likely to prove of doubtful value. Moreover, not unmindful of this possibility, many prospective proliferators can be expected to follow Pakistan's example and place limited reliance upon such guarantees. In addition, the credibility of any new security guarantees offered prospective proliferators fearful of their regional opponents would be affected adversely by the fact that many of them would entail an American promise to act against present close friends or courted potential supporters. That would be so, for example, with American guarantees to Egypt against Israel, Saudi Arabia against Iran, and Argentina against Brazil. In any case, given American domestic opinion, the highly qualified "security guarantee" to non-nuclear-weapon states provided by the United States 1968 Declaration to the United Nations Security Council most likely defines the near-term boundary for assumption of new responsibilities.

Some persons recently have proposed that the existing nuclear-weapon states at least provide negative security guarantees to non-nuclear-weapon states. Essentially only another name for the limited non-use policy already discussed, this proposal has the same major limitation as that pledge: it cannot be expected to reduce proliferation pressures upon countries threatened by their neighbor's prospective nuclear-weapon programs but not by those of the superpowers or the PRC. In addition, the value of a negative guarantee alone in the eyes of countries such as Japan, India, West Germany, and Taiwan would appear limited without a means of enforcement. But even though the impact of a negative guarantee would

* For further discussion of a more extensive "nuclear collective security system" for a proliferated world, see below, Part II, Section 2.

appear marginal, because of non-nuclear-weapon states' demands for it, support for a suitably qualified variant--to avoid the case where a non-nuclear-weapon state and a weapon-state were acting in concert--could be appropriate.*

To sum up, the importance of at least preserving, if not strengthening, existing American alliances and related security ties as a means of defusing proliferation pressures cannot be overestimated. By doing so, the United States could reduce significantly the prospect for widespread, spiralling proliferation. As for strengthened unilateral or joint security guarantees for other non-nuclear-weapon states, though desirable, such additional guarantees probably would be neither politically possible nor sufficiently credible in the present domestic and global environment. Finally, in response to the urgings of non-nuclear-weapon states, agreement upon properly worded negative security guarantees might be sought.

c. Reducing the Risk of "Preemptive Proliferation"

An important factor that could lead some potential proliferators to decide to acquire nuclear weapons would be the fear that their traditional opponent intended or was thinking seriously of doing so. For example, within the proliferation projection on page 71, Argentina, fearful of Brazil's ultimate nuclear-weapon ambitions and of the potential use by Brazil of the technology being transferred by West Germany, "jumps the gun" by launching a covert program. Other instances of possible preemptive proliferation could be cited, drawn from the set of alternative proliferation projections in our earlier report. In some of these cases, the resultant decision to "go nuclear" probably would have been based upon an erroneous estimate of the opponent's intentions. Measures to reduce such pressures to proliferate preemptively should be pursued.

Reassuring various countries about their neighbors' intentions was one purpose of the NPT. It has been only a partial success, however, because many of the most likely potential proliferators are non-parties, while adherence of several other countries has to be viewed with skepticism. Even so, there may be benefits in attempting to win the adherence of key remaining hold-outs. Signature and ratification by Argentina,

* In providing such a negative guarantee, the United States would have to cede the right to threaten use of nuclear weapons against a North Korean invasion. If that restriction upon American policy was unacceptable, one way to circumvent it would be to provide regional negative guarantees and exclude Northeast Asia.

Brazil, Turkey, Israel, Egypt, South Africa, and Indonesia could reduce the likelihood of preemptive proliferation. But it must be added that at least at present such additional signatures appear unlikely.

Creation of regional nuclear free zones (NFZs) also would serve to dampen preemptive proliferation pressures. Nonetheless, here, too, prospects for success appear limited. Argentinian and Brazilian unwillingness, for example, to become parties to the Latin American NFZ created by the Treaty of Tlateloco is unlikely to moderate. Nor are the prospects for a South Asian-Persian Gulf NFZ more promising, especially as long as India insists upon a nuclear-weapon free zone but continues to claim only to have tested a PNE in 1974.

If neither the prospects for winning new adherents to the NPT system or for the creation of NFZs appear encouraging, efforts to strengthen the safeguards system may hold out greater promise. By providing reliable assurances that nuclear-material diversion is not occurring and, in conjunction with effective sanctions to enforce legal obligations, by deterring violations of such obligations, strengthened safeguards would be a stabilizing factor.

More specifically, possible pressures upon Argentina in the early 1980s, for example, to beat Brazil to the punch would be reduced if Argentina did not fear successful Brazilian covert diversion or simply a Brazilian decision to renounce her earlier obligations. Similar dampening effects from a safeguards-sanction system would occur in the cases of Greece and Turkey; Israel and Egypt, Iraq, or Libya; the Philippines and Indonesia; Iraq and Iran; and Saudi Arabia and Iran. Put simply, effectively monitored and credibly backstopped sanctions serve to reassure both the original suppliers and the country's neighbors that the disincentives to misusing peaceful nuclear technology will appear too high.

Finally, where reliable information that one country has not decided to acquire nuclear weapons exists, that information might be conveyed to worried neighbors. But, not only might the credibility of the information-source be questioned, the information itself could be misinterpreted or differently interpreted by the recipient. In the early 1980s, to take a hypothetical but plausible example, information that Brazil's interest in peaceful nuclear explosives extended no further than one or two men haphazardly reading the existing literature might be reassuring to the United States but seen by Argentina as preparation for a nuclear weapon qua PNE program. Similarly, to a future Saudi Arabia fearful of Iranian long-term intentions, information that

the extent of Iranian interest in plutonium reprocessing was a scattering of tests in selected university physics departments or research centers could have an effect opposite of that intended. Notwithstanding the risk of differing or misinterpretation, where disconfirming information does exist, careful assessment of the potential proliferation-dampening effects of transferring it to affected parties should be undertaken.

d. Checking the Growth of Status and Prestige Pressures

The preceding two sections have focused upon means of either defusing security-related proliferation pressures or reducing the likelihood of decisions to "go nuclear" based upon uncertainty about a traditional rival's intentions and activities. In both cases, as well, successful efforts to reduce those specific pressures would serve to prevent the growth of proliferation momentum, identified earlier as one driving force of widespread nuclear diffusion. It also is necessary to consider means of reducing the likelihood that many countries would conclude either that nuclear weapons were a ticket to heightened regional and/or global influence or simply a necessary symbol of national sovereignty. Various ways in which American non-proliferation policy could attempt this warrant brief mention.

To a significant degree, efforts to strengthen or maintain American alliances and security ties and to reduce preemptive proliferation pressures indirectly serve that purpose. This occurs because, given the linkages among many potential proliferators, status-related pressures in other countries probably would emerge following that first country's decision to acquire nuclear weapons. To illustrate with reference again to Table 9, even though security pressures would be the critical trigger of Taiwanese and South Korean nuclear-weapon acquisition, their decisions probably would increase status or prestige-related pressures within Japan. Similarly, should Argentina jump the gun on Brazil, the need to preserve its status and influence within Latin American affairs would in all probability lead Brazil and perhaps others to follow suit. Thus, in certain regions or situations, by defusing non-status pressures upon some countries, others' status pressures also could be kept from growing in intensity.

But for other countries, status and influence pressures probably would be less derivative of the actions of some other country within that region and stem instead from the belief that "going nuclear" would reinforce and legitimize their own position of regional influence and prominence. India's 1974 test probably was motivated partly by that calculation; so might be an eventual Iranian decision to acquire nuclear

weapons. If so, should the United States, in an attempt to check the growth of those pressures, adopt a policy of acknowledging such countries' leading regional roles? Both continued American arms sales to Iran and the recent American "consultation agreement" with Brazil appear to be based upon such acknowledgment. By taking these countries seriously and recognizing their claim to be heard in the region and to speak for it externally, American policy might be able to dampen status-related proliferation pressures.

To follow that course, however, is not without risk. Other countries within the region may oppose "our choice" of regional hegemon and the United States may find it inadvisable to neglect those objections.* In turn, such support could backfire should a chosen regional hegemon be encouraged in courses of action that ultimately would clash with other American regional interests.** And, other regional countries, unwilling to acquiesce in a rival's emergence as an "interlocuteur valable" for the United States, might come to believe that their own prior acquisition of nuclear weapons would be a suitable symbolic rejection of that choice. Each of these risks should be considered in evaluating whether the risks of attempting to raise the regional status of particular countries outweigh the potential benefits.***

A less risk-prone, but more nebulous, approach would recognize the importance of status-related proliferation pressures and seek to infuse that recognition throughout day-to-day diplomatic activities involving these countries. Inviting Japan to participate in the London suppliers' talks, for example, represented a significant--and not unappreciated--acknowledgment of Japan's growing global importance. Similarly, continued attention to West German views within the NATO alliance has helped prevent the emergence of a belief that only if West Germany had access to nuclear weapons would the United States pay attention to West German interests. Or, should an international body within the IAEA be established

* Saudi Arabia, for example, already has expressed its objections to the magnitude of American arms sales and related support to Iran.

** A possible expansionist Iran of the late 1980s-early 1990s would be an example.

*** Other reasons than reducing proliferation pressures for supporting particular countries, of course, exist and would have to be considered within such an evaluation.

to regulate and carry-out peaceful nuclear explosions, consideration might be given to seating such countries as Brazil and Iran on that board. More generally, the style of American diplomacy's dealings with prospective proliferators may be an important determinant of the extent to which nuclear weapons come to be regarded as a prerequisite to perceived legitimate global influence and recognition. Even relatively minor American actions or statements can turn out to be important. Within unofficial Indian defenses of an Indian nuclear-weapon program, not infrequent references are made to Herbert Klein's statement, in explaining former President Nixon's trip to China, that it was no longer possible to ignore a nation of 800 million people who possessed nuclear weapons.* Considerations of possible proliferation side-effects, therefore, should be factored into on-going American diplomatic contacts with prospective proliferators.

Some are likely to react to the preceding discussion by proposing that the most important means for reducing status and influence-related proliferation incentives has been overlooked: i.e., superpower nuclear deemphasis. The earlier examination of no-first-use policies and the proliferation implications of the SALT suggest three responses to this criticism. First, adoption of a blanket no-first-use policy as part of a nuclear deemphasis strategy probably would increase security-related proliferation pressures within key countries. Second, irrespective of superpower statements and actions,** nuclear weapons are qualitatively different and do serve to set their possessors apart from other nations. For that reason their possession can be expected to appeal to at least some countries as a means of claiming greater regional and global prestige, status, and influence. Third, the superpowers appear unlikely in any case to agree to a level of nuclear deemphasis where it could be argued that nuclear weapons played a negligible role in world politics. Therefore, efforts to reduce status-related proliferation pressures may have to rely upon more limited actions along the lines just proposed.

* * * * *

* Subrahmanyam, op. cit., p. 129.

** The failure of efforts in the Middle Ages by the Pope to outlaw gunpowder usefully are recalled here.

Combined together the preceding measures (summarized by Table 10) designed to constrain technical capabilities, to increase disincentives, and to decrease incentives, if adopted, would exert a steady restraint upon widespread nuclear proliferation. Moreover they would be mutually supporting. And, in evaluating the impact of such a non-proliferation strategy, that mutual reinforcement must be borne clearly in mind. Whereas no one individual policy can be seized upon as a complete solution, the total package's impact can be expected to be greater than the simple sum of its parts.

But, some might ask, would not such non-proliferation policies simply "buy time," holding off more widespread proliferation only for a decade or so? Several responses to this question are necessary.

First, its implicit assumption that widespread proliferation is inevitable needs to be challenged. As Hudson's earlier report argued a range of conditions or driving forces which could lead to that outcome can be envisaged. But, as that report also suggested, the emergence of these conditions is not unavoidable.

Second, buying time is not unimportant in and of itself. Prospective proliferators' political-strategic situations may change over time and with it the balance of their proliferation incentives and disincentives. Moreover, other countries may become more willing to join together in further non-proliferation efforts. In turn, buying time and slowing the pace of proliferation policy both makes less likely the rise of the belief that widespread proliferation is inevitable--one driving force of such proliferation--and eases the process of local and global adjustment to the problems of increasing proliferation.

Third, the question as posed overlooks the fact that the scope and characteristics of a future proliferated world, should it occur, can vary significantly. Non-proliferation policies seek to influence those factors and are not to be viewed simply as "holding off the deluge." We shall return to this point in greater detail later,* but first it is important to consider one final aspect of non-proliferation strategy: responses to near-term dramatic proliferation events.

* See below, Part II, Section 1a.

Table 10
ELEMENTS OF A NON-PROLIFERATION STRATEGY

REINFORCING CONSTRAINTS AND INCREASING DISINCENTIVES

1. NUCLEAR-EXPORTS INITIATIVES
 - A. "SENSITIVE" FACILITIES MORATORIUM
 - B. INFLUENCING LDC NUCLEAR-IMPORTS DECISIONS
 - C. SUPPLIERS' AGREEMENT UPON PROCEDURES AND RESPONSES TO SAFEGUARDS' VIOLATIONS
2. INVOKING AUTOMATIC AND PRESUMPTIVE SANCTIONS
3. AGREEMENT UPON AN (INCLUSIVE) COMPREHENSIVE TEST BAN
4. HIGHLIGHTING THE RISKS OF "GOING NUCLEAR"

DECREASING INCENTIVES

1. INFLUENCING PERCEPTIONS OF NUCLEAR-WEAPONS' UTILITY
 - A. MUTING AMERICAN NUCLEAR DECLARATORY POLICY
 - B. LIMITED NUCLEAR NON-USE DECLARATION
 - C. AFFECTING THE OUTCOME OF FIRST USE SINCE NAGASAKI
2. PRESERVING EXISTING AMERICAN SECURITY GUARANTEES AND ALLIANCES
3. PROVIDING NEGATIVE SECURITY GUARANTEES
4. REDUCING THE RISK OF "PREEMPTIVE PROLIFERATION"
 - A. WINNING NEW NPT ADHERENTS
 - B. STRENGTHENING THE SAFEGUARDS-SANCTION SYSTEM
 - C. SUPPLYING DISCONFIRMING INTELLIGENCE
5. CHECKING THE GROWTH OF STATUS AND PRESTIGE PRESSURES
 - A. DEFUSING NON-STATUS PRESSURES
 - B. ACKNOWLEDGING COUNTRIES' LEADING REGIONAL ROLES
 - C. DAY-TO-DAY DIPLOMACY

5. Responding to Near-Term Dramatic Proliferation Events

The central focus of American non-proliferation strategy, therefore, should be the adoption of policies for reinforcing constraints and defusing pressures upon prospective proliferators. However, it also is necessary to prepare for possible near-term (3-7 years) dramatic proliferation events or turning-points. These events, as argued in Hudson's earlier report, both pose a threat and provide an opportunity. If met by an inadequate or inappropriate response, these dramatic events probably would increase markedly the scope and pace of proliferation. Conversely, the "crisis climate" associated with their occurrence may provide an opportunity for institutionalizing more fundamental anti-proliferation measures and reforms and for otherwise strengthening the non-proliferation regime.

Beginning from that threat-opportunity duality, this section briefly sketches possible responses to the following potential near-term dramatic proliferation events: a clear-cut safeguards agreement violation; an ambiguous safeguards agreement violation; the next overt entry into the nuclear-weapon club; a possible future covert nuclear-weapon program; the first withdrawal from the NPT; a government-to-government "gray market" exchange of nuclear-weapon material, personnel, or critical technical assistance; a violation of the NPT; and the first use of nuclear weapons since Nagasaki. The discussion is not intended to be exhaustive. Instead, its purpose is to illustrate the importance of prior thinking about such events; to stimulate such thinking; and to indicate where more comprehensive and detailed planning, and prior intelligence gathering, could be warranted.

a. A Clear-Cut Safeguards Agreement Violation

An American failure to respond strongly after detection of a clear-cut safeguards agreement violation would have far-reaching damaging repercussions. It probably would encourage similar action by other potential proliferators. At the least, estimates of the risk of attempting to circumvent the safeguards system would be affected adversely. In turn, failure to react appropriately would weaken potential proliferators' diffuse perceptions of the external constraints of "going nuclear." Moreover, successful flaunting of the safeguards system might erode suppliers' restraint by engendering a sense of futility about efforts to control proliferation. Finally, an unopposed or weakly opposed violation probably would reinforce preemptive proliferation pressures where such pressures already existed. That is, as noted above, one factor checking the intensification of such pressures is the

belief that an effective safeguards system would deter illegal use of transferred technology by the prospect of detection and punishment. Failure to respond forcefully would shatter that expectation. Therefore, for example, to a country such as Argentina, confronting an expanding Brazilian nuclear infrastructure but no longer confident of safeguards' capacity to cramp Brazil's possible future nuclear-weapon efforts, beginning a covert program might appear the least bad alternative.

As for possible responses, an effective American response would try both to limit the damage to non-proliferation efforts and also to strengthen again the non-proliferation regime. Turning to measures for limiting the damage of a clear-cut safeguards violation, unilateral, but preferably multilateral, sanctions along the lines discussed above might be invoked. Even in the face of a *fait accompli*, such sanctions probably would exert an important deterrent impact upon other potential violators. Concomitantly, public expressions of support, perhaps with increased budgetary allocations, for the IAEA to prevent its demoralization and the erosion of its inspection function also might be warranted.

Alternatively, in the shock atmosphere created by the violation, it might become possible to reach agreement upon measures designed to strengthen or reform the NPT system. Expressions of support for the IAEA could be supplemented by attempts to augment its functions, e.g., perhaps by providing it with a supervisory role over international fuel cycle centers, and to change its procedures, e.g., on allocating the burden of proof of a safeguards violation. Similarly, if the principle of "collective responsibility" for enforcing safeguards agreements had not yet been accepted, now would be an appropriate time for heightened diplomatic efforts to reach that agreement. Renewed diplomatic efforts to convince the other major nuclear suppliers not to sell "sensitive" facilities and to foster agreement upon possible alternatives to national acquisition of such facilities might be called for as well. Other examples could be given. The basic point is that after such a dramatic event the global, domestic, and bureaucratic climate may be amenable, but only temporarily, to the adoption of new policies.

b. An Ambiguous Safeguards Agreement Violation

At least in theory, the basic outlines of a suitable response to a clear-cut violation are readily determinable. In contrast, how to react to an ambiguous violation poses some problems. If allowed simply to slip by, an ambiguous safeguards agreement violation could encourage similar violations and result in reduced IAEA morale and

organizational effectiveness. Prolonged controversy over whether a violation had occurred and then about the legitimacy of punitive measures also could be costly. If that controversy demonstrated IAEA procedural limitations or other factors facilitating ambiguous violations, further violations might be encouraged to an even greater degree. Or, heated dispute within the IAEA hierarchy as to the appropriate finding could politicize further that organization and erode its capability to carry out necessary safeguards functions if an effective response was not forthcoming.

It may be necessary, therefore, to choose between a punitive and a more low key response. The former, attempting to make an example of the violator, would seek to push through an IAEA finding of violation and then to invoke sanctions comparable to those adopted in the non-ambiguous case. Alternatively, a low key response would acknowledge the mootness of this possible violation, but stress the need for measures to close this and other safeguards' loopholes. Once again, positive steps to strengthen IAEA procedures and capabilities, e.g., reallocating the burden of proof for non-NPT parties, could be pursued. Furthermore, if not yet begun, the time would be ripe to discuss with other nuclear suppliers possible joint responses to less ambiguous violations and the extent to which each country would defer to another's finding of a safeguards violation.

The choice between the exemplary approach and the low key approach is likely to be heavily dependent upon the particular context. The preceding is not intended, therefore, to suggest that cases where a strong reaction would be feasible and necessary will not arise.

c. Next Overt Entry into the Nuclear-Weapon Club

The impact of the next overt decision to acquire nuclear weapons will vary depending upon the specific country and whether it violated any legal obligations. Concomitantly, it may be desirable to think through potential responses to the most likely "possible next proliferators" and possible counter-responses by these countries, and not to think in terms of a blanket response irrespective of country.

To illustrate, consider a hypothetical Taiwanese nuclear-weapon program, begun after her withdrawal from the NPT and using plutonium derived from her 40 MWe research reactor. The United States could respond by severing remaining security ties or defining their coverage as excluding Taiwan's nuclear-weapon facilities and refusing to supply arms on the grounds that American support had presupposed a non-nuclear Taiwan. At the same time, nuclear fuel supplies could be cut off and a trade embargo instituted.

However, if prior changes in American policy, e.g., an abrupt shift towards normalizing relations with the PRC, had triggered Taiwan's actions, some hesitancy to adopt the latter course of action could emerge. That reluctance could be strengthened if other American allies in Asia believed that prior American actions had left Taiwan no choice and that invoking sanctions was to pile injury upon injury. And, Taiwan could seek to reinforce that reluctance by protesting its complete readiness to abide by existing safeguards agreements on American-supplied facilities and by asking what else it could have done since its survival was at stake. Furthermore, fears that a heavily punitive response might foster a nuclear "gray market" "pariah international," comprised of Taiwan, South Africa, and Israel, also might exert a countervailing pressure. Both of these possibilities would have to be borne in mind in considering how to respond to a Taiwanese decision to "go nuclear" and how to parry potential Taiwanese counteraction.

Similarly, a Pakistani decision to develop nuclear weapons might be met with combined economic, security, and nuclear-program sanctions. Furthermore, diplomatic efforts to constrain Iran's potential, if not likely, inclination to follow suit, perhaps by stressing dependence upon American military sales and assistance, also would appear necessary. Here, too, the risk of driving Pakistan into "gray market" collaboration, perhaps with one or another oil-rich Arab country, would have to be assessed, as would ways of preventing or deterring such collaboration.

As both examples illustrate, responding to new entrants into the nuclear-weapon club entails balancing of the risks of non-response against those of a coercive-punitive one. In particular, more detailed contingency planning should include delineating possible counteractions by the target country and means of neutralizing or reducing the impact of such responses.

d. Covert Entry into the Nuclear-Weapon Club

What about responses to indigenous covert programs, assuming their detection by American intelligence-gathering capabilities? As discussed earlier, quiet threats of sanctions might be used to pressure a country into stopping such covert preparations. At the same time, two reasons why American non-proliferation strategy might consider not reacting overtly to such programs should such quiet pressure fail warrant brief mention.

First, as long as there was no public confirmation of a rumored program, domino possibilities could be lessened. For example, should India's 1974 nuclear test be confirmed to be part of a secret ten-year plan to deploy a serious nuclear force, any remaining Pakistani hesitations about the necessity of "going nuclear" probably would disappear. Moreover, even though failing to respond overtly to covert programs might encourage others' covert actions, that outcome would have to be weighed against the preceding possibility of triggering even less desirable overt development and deployment of growing nuclear forces by these countries.

Second, a strong punitive reaction would risk transforming a small covert program into a larger overt one. Most probably accompanying that change would be greater risks of unauthorized access, deployment of potentially technically deficient and destabilizing operational systems, and, as just proposed, transformation of other related countries' programs into overt ones.

That is, granting that no proliferation is to be preferred, covert proliferation may be less dangerous than overt. And, by not openly responding to covert programs, the chance of keeping such programs limited could be increased. Diplomatic leverage still might be exercised quietly against prospective proliferators; its purpose, in this context, however, would be to pressure such countries into stopping short of a decision to become overt nuclear-weapon states.

e. First Withdrawal from the NPT

Article X of the NPT provides a right of withdrawal if a party decides that "extraordinary events, related to the subject-matter of this Treaty, have jeopardized the supreme interest of its country."

* The following discussion assumes that a legal obligation was not being violated by such covert preparations.

Such withdrawal could have several consequences, ranging from triggering a spate of additional withdrawals to the growing demoralization of non-proliferation forces. Given those consequences, even though it is to be hoped that Article X will not be exercised, prior thinking about an appropriate damage-limiting response is required.

At first glance, it might seem that only a strong response, invoking presumptive sanctions, would sufficiently limit damage. Such a response would seek to reaffirm support for non-proliferation, to warn other potential proliferators, and to counteract a possible loss of morale. But, assuming that withdrawal has not been accompanied by a safeguards agreement violation, a more low key response might be preferable. That is, the best way to limit damage could be to try to make the first withdrawal a "non-event." Efforts to rally new NPT recruits would be avoided, as would the calling of an ad hoc NPT conference to discuss measures for strengthening the NPT. Recognition of potential adverse repercussions if a new recruiting drive failed would underpin the former, while fears that attempts to amend the treaty instead could lead to its unraveling would support the latter. More generally, a low key approach would rest upon the proposition that the best way to reduce the risk of demoralization and of a series of withdrawals might be to avoid engendering and propagandizing an "NPT-in-crisis atmosphere." Thus, before deciding to undertake a more energetic response to a first withdrawal, these countervailing possibilities should receive careful consideration.

f. A "Gray Market" Government-to-Government Exchange

Among the most important proliferation turning-points identified by Hudson's earlier study was the emergence of nuclear "gray marketeering."¹⁴ The reasons for so concluding may be summarized briefly.

Initially only isolated government-to-government transactions, entailing the exchange of strategic special nuclear material, key personnel, and/or associated nuclear-weapon program assistance might be involved. But if unopposed, such transactions could lead to more extensive "gray marketeering," including the sale or barter of nuclear weapons and entailing access to such weapons or their critical components by non-national groups. Moreover, within a "permissive" environment, individual scientists and technicians might see few obstacles to selling their knowledge and services as nuclear mercenaries. In addition, the likelihood that individual nuclear industry companies might contemplate using "gray market" nuclear bribes as "sweeteners," just as money was

¹⁴ See Dunn and Kahn, pp. 42-45.

used in the past, probably would increase. Failure to respond to the initial government-to-government precursors of full-blown "gray marketeering" also probably would demoralize non-proliferation forces while fostering the belief that widespread proliferation had become unavoidable. Finally, as described elsewhere, the growth of more extensive "gray marketeering" probably would intensify the pace and increase the scope of proliferation.

Given the gravity of the threat, a strong response to initial "gray market" exchanges, based upon the proposition that some activities are simply "out of bounds," clearly would be required. Appropriate economic, political, security, and nuclear-assistance sanctions might be invoked, perhaps as part of a broader strategy of making the seller an "international pariah." If so, such sanctions might include a refusal of landing rights for planes, a communications cut-off, and even the possibility of a selective limited military response.* Because widespread "gray market" availability of nuclear weapons or their critical components would threaten the Soviet Union as well as the United States, possibilities for joint Soviet-American action should be explored as well.

In addition to the preceding damage limiting steps, more positive courses of action might be pursued. If the Soviets proved amenable to joint action against "gray marketeering," other norms for a proliferating world that both the United States and the Soviet Union might be willing to support, e.g., no-safe-haven for nuclear terrorists, could be sought. Or, possible exports-controls loopholes that might encourage additional "gray market" activities could be closed. Finally, responsibility for intelligence-gathering about emerging "gray market" networks and about the availability and movement of critical personnel might be institutionalized. This last factor would be particularly important, facilitating additional preventive action to avert emergence of a full-blown "gray market."

g. Violation of the NPT

Prior thinking about how to respond to an NPT violation also would be in order. Possible violations could include: covert nuclear-weapon manufacture, detonation of a PNE, and assistance in manufacturing a nuclear-explosive device. As elsewhere, failure to respond to a clear violation could be expected to have far-reaching adverse consequences. Other violations both of the NPT and of safeguards agreements and related assurances would be encouraged. Moreover, not only might the morale of non-proliferation forces be eroded seriously, but the NPT regime itself might even collapse. Furthermore, pressures upon neighboring countries

*See below, Part II, Section 3f.

to acquire nuclear weapons would increase, as would the belief that widespread proliferation was becoming inevitable.

Again, a mix of negative damage-limiting and positive reform-oriented responses might be adopted. That is, in addition to invoking appropriate sanctions, the short-lived crisis atmosphere could be used to promote and win agreement upon key non-proliferation reforms. More specifically, possible reforms in each of the following areas might be pursued: additional restrictions on nuclear-export practices; establishing procedures for the development, evaluation, and supply of PNEs; specific amendments to strengthen the NPT; and strengthening IAEA responsibilities and safeguards procedures. Space precludes here a detailed analysis of what might be done in each of the above areas; suffice it to suggest the desirability of prior thinking about possible negotiating packages in each of the above areas, packages ready for presentation at the critical moment.

h. First Use of Nuclear Weapons since Nagasaki

One final and critically influential turning-point would be the first use of nuclear weapons since Nagasaki. Depending upon its specific characteristics and consequences, such first use could have varied effects upon potential proliferators' perceptions of nuclear weapons' utility. More precisely, successful use or threatened use probably would increase markedly the belief that possession of nuclear weapons was both necessary and useful. Conversely, a nuclear-weapon accident, a "nuclear coup d'etat," or unsuccessful use probably would lead some countries to reassess negatively the risks and benefits of acquiring nuclear weapons. Thus the importance of assuring that the first country to use nuclear weapons since Nagasaki fared badly should be emphasized.

At least in theory, a range of damage-limiting responses--some presently more plausible than others--to such first successful use by an Nth country can be delineated. First, the United States could join, make possible, or at least "stand aside" to proportional tit-for-tat nuclear retaliation against the first user. For example, assume both a Libyan nuclear attack upon Israel using two or three stolen or purchased nuclear weapons and also that Israel lacked a nuclear retaliatory capability of its own. In that situation, the United States could respond for Israel or provide Israel with the weapons to retaliate itself. Or should a future nuclear-armed Arab country in a nuclearized Middle East attack one Israeli city, attempting unsuccessfully to do so anonymously, the United States could make possible tit-for-tat Israeli retaliation by deterring a Soviet response against that Israeli action. Finally, the United States could stand aside to a proportional nuclear response by either the Soviet Union or the People's Republic of China after

nuclear first use by an American client or friend. Soviet retaliation for Iraq after an early 1990s Iranian preventive nuclear attack upon Iraq's nuclear-weapon facilities would exemplify the former, a PRC response to a South Korean use of nuclear weapons against North Korea in the late 1980s the latter.*

Second, after successful nuclear blackmail, lesser level outside conventional and nuclear military pressures might be exerted to restore the political and territorial status quo. For example, should India in the late 1980s use the threat of nuclear attack to coerce Pakistan into accepting its further partial dismemberment or to create a puppet regime in Bangladesh, outside powers could intervene to reverse the outcome of such a "local Munich."

Third, in response to first use of nuclear weapons by an Nth country, that country's remaining nuclear force, nuclear stockpile, and production facilities might be destroyed using precision-guided conventional munitions. Following Indian resort to selective nuclear attacks in a future Indo-Pakistani war, such action by the United States would be one means of negating successful first use.

Finally, barring other more forceful measures, efforts to make the first user an "international pariah" could be pursued. Economic and political sanctions might be adopted; the country's airlines, students, and tourists banned from entry to other countries; and its membership in international groups revoked.**

However, whether any of these responses could, would, or should be undertaken--and the risks of doing so--probably would be heavily dependent upon the specific global and local context. The next research step, therefore, would be more detailed analyses of different first-use scenarios and what might be feasible and appropriate in each.

Even more than in the case of the other dramatic proliferation events, first use since Nagasaki could change radically the global political climate and perhaps make key reforms possible. As discussed below,*** following this event, it might be feasible to reach agreement with the Soviets upon minimal if not more far-reaching rules of behavior in a

* Though such measures appear highly unlikely now, after the shock of first use they might become less so.

** On such banishment, see below, Part II, Section 2.

*** See below, Part II, Section 2.

proliferating world. For example, both might agree because the sale or transfer of nuclear weapons by Nth countries to other countries or even politically favored sub-national groups posed such direct and indirect threats to their security, not to tolerate such sale or transfer. Or, were first use to have involved action by a non-national group, it might become possible to agree upon and implement the no-safe-haven for nuclear terrorists principle proposed below.

Concomitantly, if first use should occur in the early stages of a second phase of proliferation, it would be desirable to respond by seeking agreement upon a range of anti-proliferation measures. Among pur-suable measures would be: suppliers' agreement upon a retroactive moratorium on the sale of "sensitive" technologies and upon the principle of collective responsibility for enforcing safeguards agreements; acceptance of an ICTB; creation of NFZs; strengthened security guarantees; and potential sanctions against new nuclear-weapon states. But, if the shock effect of nuclear-weapon use is to be used purposively to foster agreement upon any of the preceding measures, prior preparations are necessary. Such preparations partly would involve more detailed development of negotiating positions, but they also would entail additional thinking about which measures might be pursued most usefully.

The first use of nuclear weapons since Nagasaki clearly would be a dramatic event. What should not be overlooked is the extent--given prior preparations--to which it, as well as other future dramatic proliferation events, may provide possible opportunities as well as dangers. Recognizing this, and acting accordingly, should be a critical aspect of American non-proliferation strategy. In particular, in the case of such potentially fast-moving dramatic events as a clear-cut safeguards agreement violation, first withdrawal from the NPT, evidence of gray marketeering, a violation of the NPT, or the first use of nuclear weapons since Nagasaki the pay-off of prior contingency planning may be high. Moreover, even where events might move more slowly, allowing time for more "spur-of-the-moment" action, the need for prior intelligence-gathering activities would remain.

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II. MANAGING IN A PROLIFERATED WORLD

Should non-proliferation efforts prove unsuccessful, a world of twenty to thirty nuclear-weapon states could emerge by the early 1990s. This part of the report comprises a preliminary identification and assessment of strategies for managing in a more proliferated world. Both to provide a context for more detailed future contingency planning and to indicate the likely difficulties of devising a strategy for managing in a proliferated world, a wide variety of policy approaches and alternatives are discussed. As such, the following purposefully poses more questions than it answers and points to more problems than it can resolve.

1. Dimensions of Managing in a Proliferated World

Before turning to particular policy approaches, a basic framework for policy analysis should be delineated. This entails brief discussion of possible alternative "proliferated worlds" and their varying implications, of aspects of stability in such a world, and of various tensions and choices inherent within attempts to design a management strategy for a proliferated world.

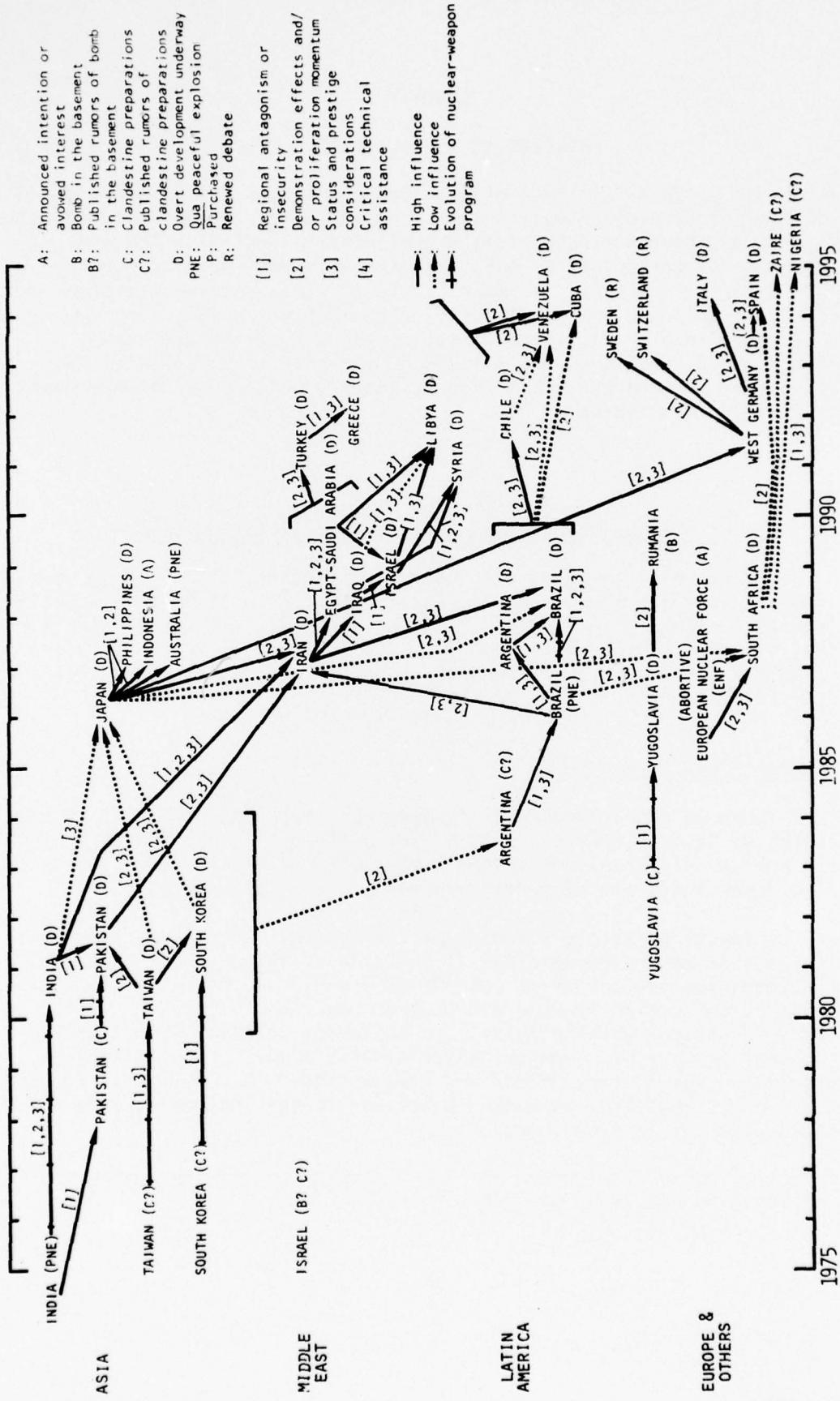
a. Which Proliferated World?

Throughout the preceding discussion reference has been made to the problems of "a proliferated world." But different "proliferated worlds" could emerge, distinguished by the number of states that have "gone nuclear" and the types of nuclear-weapon programs they pursue.

Turning first to the scope of proliferation, the range of possibilities that may be encompassed is depicted strikingly by the comparison between the projection on page 29 of a world in which the scope of proliferation remains limited and that on page 82 of a world in which efforts to control proliferation have collapsed completely, possession of nuclear weapons has come to be technically simple and politically fashionable, and nuclear "black and gray markets" have emerged. Between these two alternatives, as Hudson's earlier report indicated, exists a range of intermediate outcomes.*

*See Dunn and Kahn, op. cit., Part II.

WIDESPREAD: MULTI-REGIONAL: CHAIN REACTION PROLIFERATION TO 1995



Proliferation, however, involves more than only an increase in the number of nuclear-weapon states. "Going nuclear," to repeat an earlier point, encompasses a broad range of choices and outcomes.* Depending also upon the types of nuclear-weapon programs pursued by different countries, therefore, the characteristics of a proliferated world could vary significantly. The following table differentiates broad categories of nuclear-weapon programs in terms of their purpose, degree of operational readiness, technical characteristics, and warhead stockpile size. These range, for example, from a small covert program to a stable, reliable, and technically competent, serious second-strike nuclear force and include a small prestige program designed to detonate a nuclear weapon to show that 'we, too, are 'in the business'.' Future proliferation, if it occurs, probably would be characterized by a mix of these different program types, with the overall combination changing over time as the nuclear-weapon programs of at least some proliferators evolved.

The implications of the preceding for management policy should become clear once it is noted that the problems of managing in a proliferated world are likely to be more or less severe from world to world. For example, to the extent that there are fewer Nth countries and more of these are satisfied with either prestige PNE programs or non-operational nuclear forces, the risk of small-power nuclear wars would decline. Conversely, in a world of many "serious but technically deficient" forces, that risk would increase. Other examples might be provided. Thus, one important means of managing in a proliferated world, one which often is overlooked, would be to influence the world's two critical dimensions, its scope and its program mix.

More specifically, two lines of action are needed. On the one hand, continued measures to slow proliferation, reducing the scope of the problem, definitely remain necessary. Non-proliferation policy is the most important near-term management tactic. Put simply, the fewer Nth countries the better. On the other hand, efforts to keep possible future proliferators at the bottom rungs of the nuclear-weapon-program ladder are needed. In particular, to the extent that more countries can be pressured or persuaded to stop at covert programs, "in the business" prestige detonations, or small non-operational nuclear forces, that would ease significantly the management task. We shall return periodically to this objective in the later discussion.

* Ibid., Part III.

Table 12
SOME NUCLEAR-WEAPON-PROGRAM TYPES

1. SMALL COVERT PROGRAM
2. TESTING OF PNES FOR PRESTIGE PURPOSES
3. NON-OPERATIONAL, "IN THE BUSINESS" PRESTIGE PROGRAMS
4. GROWING STOCKPILE OF NUCLEAR WEAPONS WITH PLANNED RELIANCE UPON "OFF-THE-SHELF" DELIVERY SYSTEMS, THOUGH STILL MAINTAINED IN A NON-OPERATIONAL CONFIGURATION
5. A "SERIOUS" NUCLEAR FORCE, KEPT IN OPERATIONAL READINESS BUT POSSIBLY CHARACTERIZED BY ONE OR MORE TECHNICAL DEFICIENCIES
6. STABLE, RELIABLE, TECHNICALLY COMPETENT SECOND-STRIKE NUCLEAR FORCE

b. Aspects of Stability

Turning to various aspects of potential stability even within differing proliferated worlds, three aspects should be distinguished. First, the technical characteristics of Nth country nuclear forces themselves may be more or less stable, in some cases thus significantly increasing or decreasing the risk of conflict. For example, inadequate C3 in some countries seeking "serious" programs probably would facilitate unauthorized access to nuclear weapons and for various reasons add to the risk of a regional nuclear exchange.

Second, it also is important to examine the stability of regional strategic situations, defined in terms of ability to withstand the shocks of intense crises, low level conventional conflicts, or unauthorized or accidental provocative acts. That, too, is likely to vary. In particular, where mutually survivable nuclear forces are lacking, strong pre-emptive pressures could arise during such crises or conflicts.

A third aspect of stability has to do with the global repercussions of local proliferation and instabilities. Other extra-regional developments, aside from the danger that a regional nuclear confrontation could lead to a superpower confrontation, are possible. These range from a heightened risk of global nuclear terrorism to possible reduced superpower freedom of action in newly nuclearized regions.

Focusing upon each aspect of stability, a management strategy--in addition to attempting to reduce the scope of proliferation and to keep countries at the lower rungs of the nuclear-program ladder--might seek to foster more stable Nth country nuclear postures, to contribute to regional stability, and to devise ways to circumscribe the global repercussions of local proliferation. (Table 13 on page 86 summarizes a set of possible stability conditions for a proliferated world.) Any such strategy, however, would confront those potential tensions and choices discussed next.

c. Tensions and Choices

The most important tensions--indicating the complexities of developing a strategy for managing in a proliferated world--include those between retarding proliferation and managing it; high importance problems and high confidence solutions; proliferation policy and other domestic, foreign, and national security policies; a world-order perspective and a particularist national-interests perspective; and managing and managing in a proliferated world. Each warrants brief description.

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Table 13
STABILITY CONDITIONS

TECHNICAL

RELIABLE NUCLEAR-WEAPON SAFETY DESIGN FEATURES
RELIABLE AND REDUNDANT COMMAND, CONTROL AND COMMUNICATION SYSTEMS AND PROCEDURES
CAPABILITY TO IDENTIFY ATTACKER
DAMAGE-ASSESSMENT CAPABILITY
RELIABLE WARNING SYSTEM (IF RELIED UPON FOR PROTECTION OF STRATEGIC SYSTEM)
SURVIVABLE SECOND-STRIKE CAPABILITY
HUMAN RELIABILITY

DOCTRINAL

AVOIDANCE OF "GENERAL GOOD THING" DOCTRINE
AVOIDANCE OF CONVENTIONALIZATION OF NUCLEAR WEAPONS
AVOIDANCE OF ALL-OR-NOTHING, HAIR TRIGGER RESPONSE

OPERATIONAL

FAIL-SAFE NOT FAIL DEADLY MODE OF OPERATION
VULNERABILITY OF EACH SIDE'S ASSETS (IF ASSUME DETERRENCE BY THREAT OF UNACCEPTABLE DAMAGE BY SURVIVING FORCES)
TESTED AND ASSIMILATED ALERT PROCEDURES
INFORMATION ABOUT MAGNITUDE OF OPPONENT'S CAPABILITIES (AVOIDING "WORST CASE" ASSUMPTIONS)

POLITICAL

OUTSIDE PROVISION OF SURROGATE SECOND STRIKE CAPABILITY FOR WEAKER OR NON-NUCLEAR COUNTRIES
POSSIBILITY FOR DECOUPLING LOCAL CONFLICT FROM CENTRAL BALANCE
RESPONSIBLE LEADERSHIP AND RATIONAL CALCULATION

More widespread proliferation, if it occurs, would emerge over a number of years. Efforts to manage that proliferation which has taken place could conflict with continuing efforts to retard further proliferation. To illustrate, given the potentially disastrous consequences of technically deficient Nth country nuclear forces, e.g., unauthorized access and use triggering an unintended nuclear exchange, consideration might be given to assisting new nuclear-weapon states to develop safe weapons and reliable C3. But the leadership of coup-vulnerable prospective proliferators that might otherwise have been dissuaded from acquiring nuclear weapons due to fear of unauthorized seizure and use might change its mind if they thought that, once having "gone nuclear," such assistance would be forthcoming. Other examples of specific clashes between efforts to retard and to manage proliferation could be provided.

Some would go on to argue more generally that once policymakers even begin to think about the question of managing in a proliferated world, even if only out of prudence, non-proliferation efforts would suffer. The morale of anti-proliferation forces would be weakened, so this argument runs, and it would be more difficult to convince policymakers here and abroad to adopt strong anti-proliferation policies. This is a legitimate concern. But it must not be overstressed. Once it is understood that anti-proliferation efforts are themselves a management tactic--designed to influence both the scope and type of proliferation--it should be possible to preserve a strong non-proliferation policy even while initiating limited planning about managing in a proliferated world. In fact, as will be argued below, strengthening non-proliferation policy should be considered the most important near-term management initiative.

A second tension is that between high importance problems and high confidence solutions. By now it should be clear that a proliferated world would be a nasty and dangerous place, raising problems of high importance. But, as will become equally, if regrettably, clear when specific management policies are discussed below, identifying policies for which it can be claimed with high confidence both that they would be politically palatable and that they would "solve" various serious proliferation problems is extremely difficult.

Two implications for any strategy for managing in a proliferated world need to be noted. On the one hand, any such strategy may have to be based mostly upon those low to medium confidence measures that would be politically feasible. For example, at least initially, the only politically acceptable security guarantees for non-aligned non-nuclear states in a proliferated world may remain the 1968 American and Soviet Declarations to the U.N. Security Council. On the other hand, the

importance of being prepared to manipulate future dramatic shocks within a more proliferated world--e.g., nuclear-weapon use--to implement presently "out of the question" measures or reforms cannot be overstressed. To illustrate, in the aftermath of a regional nuclear conflict which had involved a high risk of Soviet-American confrontation and actually had entailed some local loss of life by both superpowers, each suddenly might be more inclined to think about possible rules of engagement in local nuclear conflicts.

One reason why certain measures for managing in a proliferated world can raise problems of political feasibility has to do with the third tension, that between particular proliferation policies and other domestic, foreign, and national security policies. As argued earlier, for example, against the possible contribution to shaping future new nuclear-weapon states' perceptions of nuclear weapons' usability by possibly moving to a no-first-use declaratory policy would have to be balanced the risk of eroding the NATO alliance. Or, the possible benefits of strengthened security guarantees for non-nuclear states in a proliferated world have to be weighed against both the domestic desire to reduce involvement abroad and the specific foreign policy interests of the United States in given regions. That is, as in the case of non-proliferation policy *per se*, the key questions of how much the United States and others should (or would) be ready to pay in terms of new risks assumed, new economic burdens, modified freedom of action, and greater responsibilities to manage proliferation's problems cannot be escaped.

Closely related to the preceding tension is that between what may be termed a world-order perspective and a particularist national-interests perspective. From the former perspective, for instance, it could be argued that regional and global stability in a proliferated world would dictate a strong response to any first-use of nuclear weapons, including nuclear counter-retaliation. But in a world in which some new nuclear-weapon states could threaten retaliation, if only by detonating a clandestinely placed nuclear weapon, and in which the risks of entanglement in a local nuclear war could be high, more purely national interests might dictate putting as much distance as possible between the United States and such regional strategic situations.

Finally, it is important not to overlook the potential tension between managing and managing in a more proliferated world. That is, references to managing a proliferated world well may exaggerate the extent to which it would be possible to control events and to foster stability in that world. Instead, both the United States and others could be more concerned with managing in such a world, that is with coping with its problems, avoiding direct threats, and getting by as best as possible.

2. Proscribing Nuclear First-Use: Aspects and Limitations of One Code of Behavior for a Proliferated World

If uncontrolled, widespread proliferation probably would be accompanied by periodic resort to nuclear blackmail or actual nuclear-weapon use. Not only would regional stability, to the extent that it existed, be disrupted and local societies perhaps made to suffer the destruction of small-power nuclear wars, but inherent in such wars would be the risk of their expansion to more global conflict and growing global anarchy. The prospect of these disordering consequences of nuclear use suggests the desirability, if not necessity, of an enforceable code of nuclear behavior for a proliferated world.

To analyze the limitations and feasibility of such a code of behavior--and to stimulate additional thinking on this problem--this section examines in detail one possible code.* The code in question would hold that no matter the provocation, first use of nuclear weapons was unjustifiable and that the only acceptable purpose of nuclear weapons was to deter the use of other nuclear weapons. Thus, nuclear blackmail and clear first-use would be held to be "beyond the pale." In examining this code, three questions must be discussed: How would such a code of nuclear behavior be enforced? who would enforce it? and--the most difficult question of all--under what conditions, if any, might its adoption and implementation become feasible?

a. Mode of Enforcement

To be effective, a code of behavior proscribing nuclear first-use, like any other system of rules, would require a mode of enforcement. Modern-day versions of banishment, outlawry, and lex talionis could serve that purpose.

To begin, any nation that used nuclear weapons first might be "banished" from international society. That is, its airlines could be barred from landing and its ships from docking, trade and communication links severed, its representatives expelled from all international bodies and agencies ranging from the United Nations to the International Monetary Fund, tourism both of its nationals abroad and within it banned, and its students abroad expelled.

*The code is derived from Herman Kahn and Leon C. Martel, "Nuclear Proliferation and U.S. Nuclear Declaratory Policy," (Hudson Institute, HI-2394/2-DP, 23 February 1976).

In addition, such a nation and its leaders could be declared to be "international outlaws." As a consequence, its overseas investments and holdings might no longer be considered protected by international law from expropriation without compensation. Or its leaders, if they could be captured, might be tried and punished as "war criminals." Bounties for their capture even might be placed upon their heads.

Finally, violation could be punished by nuclear retaliation equal and proportional to the nuclear use by the code's violator. In effect, this would be a reversion to *lex talionis*'s injunction of "an eye for an eye, a tooth for a tooth." That means of retributive justice is found in primitive tribes without well-developed judicial and executive institutions for punishing offenders. In the anarchic international community, also lacking well-developed independent judicial and executive institutions, such self-help long has been practiced through the device of reprisals. Although the retaliation suggested here would not meet all three classic preconditions for reprisals in international law--objectivity, subsidiarity, and proportionality--it still would accord with current legal thinking, which for the most part supports the use of nuclear weapons as a reprisal in kind.*

b. Who Would be Responsible for Enforcement?

Setting aside for the moment the question of whether they would carry out their responsibilities under such a code--as well as other questions of its feasibility--what countries might be responsible for implementing any or all of these modes of enforcement in the event of its violation? In accordance with the principle of primitive tribal societies that "every man's hand is against a violator," all countries in theory would be granted the right of enforcement.

In practice, small or medium non-nuclear states would be able only to lend their weight to the banishment and outlawry of the transgressor. And, because even within a proliferated world the United States, the Soviet Union, and to a lesser degree the PRC would be the dominant nuclear powers, according to the proposed code, they would have to be most responsible for undertaking the required talionic nuclear response. By agreement--perhaps later joined by other nuclear powers--each either promptly could provide an injured ally, client, or neutral with the means (weapon and delivery system) to retaliate equally and proportionally--and no more--against its transgressor, or act directly for the

* See the discussion in Frits Kalshoven, Belligerent Reprisals (Leyden, Netherlands: A. W. Sijthoff, 1971), pp. 351-53.

injured party. That is, at least initially, joint Soviet, PRC, and American responses would not be expected. Instead, it would have to be expected that the United States or the PRC would respond to nuclear first-use by Soviet allies or clients; conversely, the Soviets or the PRC would respond to that by American allies or clients. If such enforcement action was not to lead to a wider global confrontation, it also would be necessary for each to agree to tolerate such enforcement action by the other.

Even if agreed to by the community of nations, and by the super-powers, such a code of nuclear behavior probably would not be absolutely effective in deterring first-use of nuclear weapons. Some countries simply might not believe that the threatened responses would be carried out or might conclude that accepting the risk of retaliation--if their survival appeared at stake anyway--was the least bad alternative. And, in some situations, practical problems and second thoughts by the super-power enforcers and others could result in hesitancy and ultimate non-action, thereby permitting its successful violation. Further, particularly if several nuclear-weapon countries join in the talionic response against a weaker nuclear-weapon state--perhaps taking advantage of the violator's actions as an excuse to act against a future potential rival--the result could be disproportionate to the offense. Over time, nonetheless, it would, if implemented, provide a means of order in an otherwise potentially anarchic and destructive environment. That said, under what conditions might it be feasible to implement such a fundamental reform?

c. Feasibility Conditions

To delineate the possible conditions under which it could become feasible to adopt and implement such a code of nuclear behavior for a proliferated world, it is useful to begin by stating quite starkly the obstacles first to initial agreement upon it and then to its implementation in actual cases. Following that, possible events, and their likelihood, which could weaken or remove those obstacles can be discussed.

Pre-Dramatic Shock

Turning first to the prospect of Soviet adherence, on the evidence of contemporary practice, and the deep-seated rationales for that practice, the prospects for their adherence to such a code of nuclear behavior for a proliferated world--requiring the Soviets to stand aside to American nuclear talionic reprisal against Soviet allies or friends--must be questioned. The Soviet weltanschauung--joining Great Russian chauvinism to Marxist-Leninist ideology with the latter's belief in the inevitable ultimate triumph of world Communism over capitalism and

liberal democracy and its justification of opportunism derived from that certainty about historical inevitability--is profoundly antithetical to those apparently reasonable desiderata for stability which appeal to American officials and scholars.

That is, to talk of interstate codes of behavior is to presume a social system embracing major states that has not existed since the passing of the Concert of Europe--and really did not exist even then, given the divergences of view over the nature of 'legitimate' government. But Soviet spokesmen have been very explicit, in word and deed, upon the impossibility of alleviating the ideological struggle between East and West. Very senior and, according to Western categorization, "moderate" Soviet commentators have expressed the opinion that the cluster of recent agreements signed by superpower leaders, especially those of 1972, gave the Soviet Union close to a free hand in the Third World while restricting American freedom of action.* And, due to the nature of the Soviet political system, such expressions of opinion equal official pronouncements. Can it reasonably be expected, therefore, that the Soviets would stand aside to an American or PRC ~~talionic~~ nuclear response to Indian first-use against Pakistan?

Unless overridden by other specific Soviet foreign policy interests, enduring Soviet-American competition probably would reduce markedly, if not eliminate, the possibility of devising and implementing a common code of behavior for a nuclear-armed world. Would not, it may be asked, fears of proliferation's dangers provide the necessary overriding interest? Notwithstanding the long-term historical perspective inherent in the Soviet approach to world politics, the dangers of a more proliferated world are, and would at first remain, strictly hypothetical. Hence the Soviets probably would severely discount them. While the Soviet Union has no interest in speeding nuclear proliferation and appears ready to support stronger nuclear exports' control, especially when that entails increased tensions among the United States and its allies, its leaders--judging by their actions in the Middle East and Southern Africa--apparently deem too high the political cost of contributing to regional structures of order wherein the incentives to proliferate would be reduced.

Moreover, similar questions arise concerning American readiness to enforce the proposed code or to stand aside to Soviet or PRC enforcement. Given the somewhat loose political influence, let alone the lack

* For examples, see N. Inozemtsev, "A New Stage in the Development of International Relations," Kommunist, September 1973, p. 97; and A. Pumpianskii, "A Triumph of Realism," Komsomol Pravda, June 4, 1972.

of control, of the United States over allies, clients, and "friends," and given the domestic constituencies within the United States that are attentive to the fortunes of some of those actors, it is difficult to imagine that the United States would join with the Soviet Union in or readily stand aside to nuclear punishment of, for example, Israel or Taiwan, for exercising their sovereign rights in self-defense.

Put otherwise, highly undesirable though a more proliferated world would be for the United States, preventing nuclear first-use is unlikely to be accorded a priori absolute priority in American foreign policy. In many cases, enforcing the preceding code of behavior probably would affect adversely other American security interests. For example, many of the new nuclear-weapon states that might be the targets for a talionic nuclear reprisal would be key actors in the politics of particular regions, friends or former friends of the United States, or countries with whom the United States would be seeking better relations. Iran, Israel, India, Egypt, and Brazil are examples. Also among those other American interests could be the avoidance of a nuclear counter-reprisal against the United States. For, to deter the United States from carrying out a talionic reprisal, a violator might threaten convincingly to destroy an American city (or cities), perhaps using clandestinely inserted weapons. And, as noted above, questions about whether the Soviets actually would stand aside to American retaliation against an ally or client exist as well. This prospect of counter-deterrance should not be overlooked.*

In addition, proposals of nuclear lex talionis may not reflect adequately the realities of American political life and values. If, for the sake of argument, it is assumed that Israel has no nuclear weapons and that a gray-market-equipped Libya has launched a nuclear attack against Israel in the early 1980s, whether the United States would respond as called for by the code of nuclear behavior has to be questioned. That is, how reasonable is it to assume that a Western democracy would or could execute others, perhaps not simply thousands but even millions, in retribution by nuclear retaliation in the interest of stability, order, or abstract justice defined by the Old Testament standards of "an eye for an eye...."

Taking up the possible readiness of small and medium powers to adopt and implement the proposed nuclear code of behavior, here, too, problems of feasibility are evident. It is difficult to believe that

* Nor would the Soviets in all situations be immune to such a threat of counter-reprisal.

radical Arab states and the many Third World countries would join in the banishment of an Arab state, for example, Libya or Egypt, that had used nuclear weapons first against Israel.

More generally, it may be unrealistic to condemn in principle and in advance all nuclear first-use regardless of circumstances. To do so well might be asserting that a society should accept total destruction from non-nuclear means rather than use a nuclear weapon in its own last-ditch defense. If, as seems probable, American officials never would accept that choice for their country, can they require it of, e.g., Israel, South Korea, or Pakistan? For example, could the Israelis be denied the right to resort to nuclear weapons to counter an Egyptian-launched conventional attack that threatened Israeli survival?

In practice, therefore, a nuclear collective security system probably would function as politically and pragmatically as have former abortive collective security efforts. Though general principles or goals could be stated, each case would be examined on its merits by each interested party according to its own standards. Each nuclear-weapon user and each prospective enforcer would offer explanation for its action or inactions, and probably would find some support among other members of the global community. Thus there might be no strong presumption that nuclear first-use would be punished.

Then, even assuming political agreement to a global proscription of nuclear first-use and a readiness to enforce it by lex talionis, determining what equal and proportional retaliation was would seem to pose serious problems. Who will decide, for example, what superpower response is justified by a particular nuclear first-use? For example, suppose Egypt dropped five 20 kt. nuclear weapons on Tel Aviv. What would be the appropriate Israeli or American response? Should Israel be allowed to drop five 20 kt. weapons distributed among targets of its own choosing, to destroy one large Egyptian city, to destroy one third of the large Egyptian cities, to inflict a necessarily equal amount of civilian and/or industrial damage, to inflict civilian and/or industrial damage in a percentage equivalent to that perpetrated on Israel, or what? Or, suppose Egypt had launched a conventional attack on Israel which, appearing successful and gaining momentum, was blunted by unexpected Israeli use of twenty-five tactical nuclear weapons. What would be a commensurate response? Should equal numbers of Israeli tanks and soldiers be destroyed; or a militarily equivalent percentage of Israeli tanks, soldiers, and weaponry; or should Egypt be given twenty-five tactical nuclear weapons to do with as it saw fit?

Beyond the "Business-as-Usual" Environment

As the preceding discussion indicates, from our present perspective a series of both broad political questions and technical problems which could and perhaps should preclude adoption of the hypothetical code of behavior can be catalogued. To reiterate, these include its possible clash with other Soviet and American foreign and national security objectives, with the realities of American political life and values, with the objective of avoiding retaliatory damage to the United States, with the particular objectives and allegiances of other prospective enforcers, with the difficulties of condemning *a priori* any nuclear first use regardless of the situation, and with the difficulties of determining what is an equal and proportional response. But that perspective perhaps is inadequate. Rather than evaluating a code of nuclear behavior's feasibility within the assumption of a "business-as-usual" environment, it is reasonable first to consider what could become possible after the shock of a small power nuclear war. Then, it is necessary to point briefly to other possible global changes that might improve the chances of its successful adoption and enforcement.

A world which has seen a small-power nuclear war, one in which upwards of ten million lives might be lost, will be a very different place from one that has not. For example, the instabilities and concomitant dangers of the current framework of international relations would have to be and probably would be more squarely recognized and confronted. And, those possessed of the nuclear where-with-all to influence both global and regional stability and balances would be presented with an awesome and realistic demonstration of the effectiveness of that special power they possess. While that, combined with an assessment of the opportunities inherent in the new and demoralized international political framework, might encourage more assertive or aggressive action, alternatively the realities of the aftermath of a small-power nuclear war might have a sobering and restraining effect.

That is a particularly bleak, and in most ways undesirable, scenario. But, unfortunately, its one advantage could be that it might overcome the previously-noted obstacles to agreement on a code of nuclear behavior. Especially following a destructive small-power nuclear war in which the Soviets and Americans had become partly entangled, both the superpowers and other nations might agree that "business-as-usual" no longer was acceptable. If so, a code of nuclear behavior proscribing nuclear first-use such as that discussed above then might

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be agreed to as the only clearly available alternative to spreading anarchy, just as comparable rules prevent anarchy in primitive societies.*

Even then, nonetheless, if superpower actions are to be more than simply a brutal demonstration of their military dominance and if other nations are both to great the legitimacy of nuclear talionic reprisal and to support consistently and equally against any potential violator the other modes of enforcement, more would be needed. In particular, increased efforts to support the growth and economic advancement of less developed countries, measures to foster a more equitable global distribution of resources and opportunities, and foreign policy initiatives to defuse regional conflicts and settle local disputes would be called for. With such efforts it might be possible to create a global order which many nations would deem worth preserving from the possible spreading anarchy of a proliferated world.

Global agreement upon and implementation of a code of nuclear behavior at the very least presupposes, therefore, both increased efforts to change the quality of global life and a sufficient shock to break down the "business-as-usual" approach. Until that time, however, it would be necessary to focus upon less global approaches for managing in a proliferated world such as are discussed in the next section.

* It has to be recognized, nonetheless, that it might take several of such wars to provide the requisite shock effect.

3. Components of a Strategy for Managing in a Proliferated World

Because fundamental reforms of global political behavior appear presently infeasible, more limited management tactics--but ones consistent with later more far-reaching changes--would be needed. In fact, the most useful limited measures would be those that might provide partial stepping stones to eventual fundamental reforms. With that in mind, this section considers components of management strategy for each of the previously delineated aspects of stability.

a. Influencing the Technical Characteristics of New Nuclear Forces

As argued in detail elsewhere, the technical characteristics of Nth country nuclear forces may be inherently dangerous, facilitating unauthorized seizure and use of one or more nuclear weapons, posing the prospect of an accidental nuclear detonation, and raising the risk of inadvertent nuclear exchanges. For that reason, the relative advantages and disadvantages of assisting new nuclear-weapon states in acquiring more stable, reliable, and controllable nuclear forces require careful assessment.

Benefits and Costs of Providing Technical Assistance

Assistance could be given for command and control of nuclear weapons, nuclear-weapon safety, and alert procedures, to note several obvious possibilities.* Several probable advantages of such assistance can be noted. To begin, in situations, for example, a nuclearized Middle East, where the United States could become involved if a local conflict escalated to the nuclear level, American interests would be served directly by alleviating technical deficiencies which could trigger an inadvertent war. Moreover, both broad interests in a more peaceful world as well as the humanitarian concern for the victims of future small-power nuclear wars also suggest the desirability of providing assistance.

Further, by assisting new nuclear weapon states to handle the problem of unauthorized access, the United States would reduce the risk that a terrorist or other non-national group hostile to the United States

* This discussion here notes, but then sets aside, consideration of possible conflict with Article I of the NPT.

would gain control of a nuclear weapon. Concomitantly, this approach to the problem of non-national access to nuclear weapons, dealing with one major "source" of supply, would reduce the likelihood that extensive coercive domestic measures--threatening an erosion of liberal values and norms--would have to be adopted to manage nuclear terrorism within the United States.

Finally, there is a logical attractiveness to the simple proposition that "if the Arabs and Israelis, for example, have nuclear weapons, we and other nations--as well as the Arabs and Israelis--are better off if those weapons are safe and tightly controlled." For if they are not, even should new nuclear weapon states want to act responsibly and cautiously, they may not be technically able to do so.

Nonetheless, that proposition, as well as the longer list of benefits from providing such assistance, though attractive, may be deceptively simple. From the perspective of retarding proliferation, as already suggested, it could be better to withhold assistance on safety and command and control. That is, the image and reality of nuclear weapons as dangerous to possess, possible of harming their owner in any number of unplanned ways, serves to reinforce disincentives to their acquisition.

Concomitantly, in terms of managing proliferation, by assisting countries to develop permissive action link (PAL) systems and otherwise to develop more reliable command and control mechanisms, the United States might remove an important constraint upon the build-up of a growing stockpile of nuclear weapons. That would run directly counter to the necessary efforts proposed earlier to keep countries towards the bottom rungs of the nuclear-weapon-program ladder. Further, such assistance might help future Nth countries to develop more militarily effective nuclear forces. To illustrate, once adequate control over its nuclear weapons no longer was a serious cause for concern, a government would be able to include such weapons in its military exercises. And, the experience so gained could increase the probability that should it use nuclear weapons, it might do so successfully. But, as just suggested, all those results would affect adversely efforts to control proliferation.

And it has to be admitted that the most likely types of nuclear-weapon detonations that could be triggered by inadequate weapon-safety and command and control mechanisms--an internal nuclear-weapon accident, a "nuclear coup d'etat," a lone unauthorized use within a single region, or perhaps even an inadvertent small-power nuclear exchange--all probably would have beneficial demonstration effects upon both prospective and emerging proliferators. The former might reassess the desirability of "going nuclear," while the latter could be led to think carefully

about whether to go beyond a small "in the business" nuclear force. Therefore, refusing to assist these countries in developing safe, secure, and reliable nuclear weapons, and thereby making it more probable that the first "use" of nuclear weapons since Nagasaki would be "unsuccessful," would be one way to attempt to influence the course of future proliferation.

A Question of Timing

Thus, the serious disadvantages of providing assistance to new nuclear-weapon states in developing safe and secure nuclear forces would have to be weighed against the real advantages of so doing. The appropriate balance to be struck may depend heavily upon the pace of proliferation. At least initially, American policy might best be limited to publicizing the need for adequate nuclear-weapon safety design and control mechanisms to prevent unauthorized access. But should a growing number of countries decide to develop nuclear weapons and, more importantly, to deploy substantial numbers of nuclear weapons even without technically adequate safety and control mechanisms--which, as argued elsewhere, they could believe themselves impelled to do because of their potential adversaries' actions--it then might become prudent to provide that assistance.

Then, assuming a decision to provide such assistance, the question of whether it should be limited only to discussion of basic concepts and ideas or should include the actual transfer of specific technology and systems would have to be answered. In the latter case, depending upon the specific technology transferred, information concerning American nuclear-weapon design and control mechanisms could be revealed. That could be damaging to the United States, particularly if the recipient's ability to keep it secure was uncertain. Therefore, before finally deciding to provide specific technology, as opposed to basic concepts, possible problems of what we indirectly might be telling the wrong people about our own nuclear weapons and their control mechanisms would warrant careful assessment.

b. Attempting to Influence Nth Country Strategic Doctrine

A strategy for managing in a proliferated world also might seek to shape the nuclear-weapon doctrine of future proliferators. At first glance, particularly in comparison with the question of providing technical assistance just discussed, this may seem unexceptionable. But, difficulties emerge as soon as it is asked what the desirable doctrine would be and whether "desirable" doctrine can be promoted by the United States.

What is Desirable Doctrine?

It might be suggested as a seemingly non-controversial starting point that policy should seek to reinforce the nuclear taboo. But even that is not so clear-cut. Does reinforcing the nuclear taboo mean fostering the proposition that the only purpose of nuclear weapons is to deter the use of other nuclear weapons--a no-first-use position--or simply strengthening the belief that the use of nuclear weapons is to be considered only in the gravest of circumstances? Further and far more serious complexities arise once agreement upon which "specific" doctrinal outcomes to foster is sought.

To illustrate, should these efforts attempt to foster acceptance of counter-city targeting doctrine or should they aim at encouraging possible restrained and limited use of nuclear weapons in the advent of deterrence's failure? Ignoring the problems of technical competence, the advantages of flexibility in targeting options and firing tactics might be stressed. The same reasons that have moved the American defense community to favor greater strategic flexibility could be operative in the case of new nuclear-weapon states. But whereas limited strategic options (LSOs) should, logically, be a factor for stability on the targeting menu of an insular superpower that is pursuing defensive policies or of a status quo-oriented Nth country, the same may not be true were LSOs to be embraced by differently situated future proliferators contemplating how best they could take advantage of newly-acquired nuclear-weapon capabilities.

More precisely, in the hands of American officials, provided Soviet officials did not act to change the nature of the game, LSOs could enhance pre-war deterrent effect, extend deterrence into war, improve the prospects for managing escalation processes successfully...and so on. But, in the hands of an ambitious, dissatisfied, and ruthless regional power, LSOs might appear to be a useful instrument for the prosecution of aggressive war with controllable risks. Conversely, targeting plans oriented towards urban-industrial destruction guarantee the worst outcome, should they be employed, but the chances of their being employed probably would be rather less than that for the exercise of LSOs in the hands of states determined to pursue a forward and aggressive foreign policy. Thus, the desirability of doctrine stressing the limited and restrained use of nuclear weapons probably would vary depending upon the specific new nuclear-weapon state and its purpose of "going nuclear."

Promoting "Desirable" Doctrine: Can It Be Done?

Even assuming agreement upon what doctrine to foster, can its adoption be promoted? A preliminary response to this question requires consideration of the various obstacles confronting efforts to foster "more stable" Nth country nuclear doctrine. To begin, the range of doctrinal choice is partly a function of the scale and technical sophistication of a country's nuclear force. Many of the finer points, options, and complexities of Western strategic doctrine, therefore, at least initially, probably would be unavailable or irrelevant to new nuclear-weapon states anyway. For most medium powers, and certainly for any small powers, the impact of doctrinal preferences upon the early evolution of nuclear force posture must be presumed to be minimal. To illustrate, a country with a small nuclear-weapon capability, vulnerable to an opponent's disarming first strike is very likely to think only of targeting very high-value targets. That is, given the political decision to acquire nuclear weapons and marry them to adequate means of delivery, the military establishment of such countries probably would be limited to accomplishing what it can, rather than what it might like.

Moreover, save where a new proliferator was addressing its doctrinal remarks to a non-nuclear state, strong reasons for avoiding the explicit articulation of a strategic doctrine, or indeed even theoretical speculation, could be present initially. Detailed and competent public discussion of nuclear-weapon doctrine only might advertise already possibly obvious deficiencies in its posture. Thus, for several years at least, such new Nth countries only might remind their own people and potential foreign enemies that they, too, now were nuclear-weapon states; but they might have no interest in fueling local debate over the first strike/second strike distinction, the case for flexibility, or any other theoretical points which could illuminate with embarrassing clarity the deficiencies in their existing posture.

In addition, consideration of the possible specific doctrinal preferences of some or many new proliferators also suggests the likely difficulties of influencing such countries' doctrine. More specifically, there is little reason to assume that new Nth countries necessarily would have, in or close to positions of authority, an elite of defense intellectuals inclined to favor the theses of stable mutual deterrence that were once so popular in official Washington. That is, leaving aside for the moment the critical issue of military capability, it cannot be assumed that future proliferators would endorse, as a matter of choice as opposed to necessity, local variants of mutual assured destruction (MAD) doctrine.

On the contrary, much of the reasoning which apparently moves Soviet officials to favor an unambiguous war-fighting orientation for their strategic forces can be expected to have a very general appeal. If so, a not atypical doctrinal profile--accepting the risks of oversimplification--could include a desire:

- (a) For whatever status accrues to a nuclear-weapon state with even a marginal nuclear capability under less than favorable military circumstances.
- (b) To preclude "maverick" or "international pariah" categorization by the important international peer groups.
- (c) To deter hostile nuclear action. Therefore, some portion of the nuclear posture must be reserved for the mission of inflicting damage upon the societies of enemies.
- (d) To deter hostile conventional action.
- (e) To enhance prospects for winning future wars.

Further reason for doubting the universal appeal of mutual assured destruction to new proliferators stems from the probable incentives of at least some of these countries for acquiring nuclear weapons. The world beyond North America and Western Europe does not comprise a patch-work quilt of satisfied status quo powers that would acquire nuclear weapons solely with a view to promoting regional stability. Nuclear weapons could be acquired, for example, by Brazil, a new imperial-authoritarian India, or Iran, for the principal purpose of forwarding foreign policy goals that reasonably might be described as aggressive or, at least, hegemonic. Put otherwise, within a proliferated world, nuclear weapons may be employed not only in desperation, but also in a premeditated military fashion for the clear political ends of conquest or hegemony. For that purpose, however, nuclear weapons need not be delivered against urban-industrial targets, but rather against traditional military targets.

Each of the preceding factors, ranging from the initially limited technical and military capabilities of many new nuclear-weapon states to the desire of some to use their nuclear force to support non-status quo-oriented objectives, limits outside ability to influence the "stability" of Nth country strategic doctrine. Within the context of that constraint, nonetheless, some countries' strategic perceptions may be susceptible to outside influence.

As already suggested by the above discussion, a broad range of factors can be expected to influence Nth country strategic debate, including: foreign policy goals and the purpose of "going nuclear"; economic, technological, and military capabilities; domestic electoral and/or bureaucratic politics; national culture and interpretations of historical experience; interaction with major opponent(s), including estimates of expected outcomes of a nuclear conflict with them; and doctrinal fashions and trends. Most of these factors would appear relatively closed to outside influence. But, such influence might be brought partly to bear upon the last two factors.

Turning to influencing estimates of expected outcomes, one means of reinforcing the nuclear taboo, for example, could entail quiet diplomatic and military contacts designed to encourage particular new nuclear-weapon states to calculate realistically the potential damage to themselves of an unrestrained nuclear exchange with their major rival--assuming, of course, that the strategic balance is not characterized by unilateral vulnerability. Concomitantly, with such a calculation in hand, restraint might look more attractive to some status quo-oriented Nth countries should a conventional clash erupt and begin to escalate.

Fashions and trends also might be at least somewhat susceptible to outside influence. American nuclear declaratory policy might have a role to play here. Articulation of a no-first-use policy, for example, could help reinforce the nuclear taboo.* Conversely, an undesirable side-effect of possible eventual adoption of a "mini-nuke" theater nuclear force posture in Europe could be its adverse impact upon diffuse perceptions of nuclear weapons' usability. Nonetheless, the potential impact of such nuclear declaratory policy upon fashions and trends should not be exaggerated. A more significant outside influence probably would be how well the first Nth country to use nuclear weapons fared. Because of that, the importance of efforts, perhaps along the lines discussed earlier under responses to dramatic events, to assure that it fared badly should be stressed.

Thus, one aspect of management strategy would be policies for influencing Nth country doctrine. However, in light of the preceding discussion, the obstacles to that appear clear. Furthermore, it may be questioned whether a general wisdom encompassing the doctrinal preferences of countries as diverse as Brazil and Israel can be devised.

* In the proliferated world assumed by this discussion, the varied negative repercussions of such a declaration no longer might be compelling arguments against its adoption. Much could depend upon whether or not West Germany had emerged as a nuclear-weapon state.

For both reasons, future policy research should comprise a country-by-country analysis of the attraction of different nuclear-weapon doctrines and of possible specific means of influencing their adoption or not. At that point, a more complete answer to the question of whether desirable doctrine can be promoted may be possible.

c. Contributing to Regional Stability in a Proliferated World

Providing Surrogate Second-Strike Capabilities

Ensuring regional stability in a proliferated world could require the direct provision of surrogate second-strike capabilities or comparable security guarantees to various weaker nuclear and non-nuclear countries. In the absence of such capabilities or guarantees, the likelihood of nuclear mischief, small-power nuclear wars, "local Munichs," and "local Pearl Harbors" probably would increase significantly. But, perhaps more sharply than in any other management policy area, the specific approaches to providing surrogate capabilities--much less the question of providing them or not--illustrate the varied tensions identified earlier.

Possible joint or separate Soviet and American promises of tit-for-tat nuclear retaliation, and their difficulties, have been discussed above. To reiterate, in a future "business-as-usual" environment, at least, such promises are likely to be politically impalatable, of questionable credibility, costly in terms of other foreign and domestic policies, and technically difficult to implement.

An alternative might be to transfer nuclear weapons to countries threatened by new proliferators, but do so under a "two-key" system. Agreement between the supplier--assumed for the following discussion to be the United States--and the recipient upon release conditions also

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would be part of that arrangement. What might be the advantages and disadvantages of this attempt to foster regional stability?

To the recipient, the benefits would not be insubstantial. Modern, sophisticated nuclear weapons would be acquired at far less cost, and in far less time, than if the nation had to develop such weapons on its own. In addition, increased American involvement in its defense could provide additional deterrence of potential enemies.

However, it would have to pay for such increased deterrence and support in terms of decreased independence. That is, as part of the bargain the United States would be likely to demand and acquire a significant degree of influence, if not a veto power, over the recipient's foreign policy. Otherwise, it might find itself being dragged into a conflict by that country's adventurism, miscalculations, or bad judgment. Further, even with prior agreement upon release conditions, residual doubts about whether in the event of a crisis the United States would release the nuclear weapons probably would be unavoidable. If these doubts were shared by prospective enemies, the deterrence value of a two-key transfer of nuclear weapons might be insufficient to prevent the enemies' resort to force.

For the United States, deploying a two-key system would provide a high degree of leverage over the nation's possible proliferation. That would be consistent with the attempts to manage proliferation by reducing its scope. The United States also would acquire considerable control over possible use of nuclear weapons.

But, the benefits would be acquired at considerable cost. The risks of involvement in a conflict, nuclear or perhaps even non-nuclear, between two (or more) other nations would be heightened. Moreover, efforts by the "aggressor" to deter the United States from releasing the nuclear weapons by threatening counter-retaliation could occur. And, as noted earlier, depending upon the stakes, even the successful clandestine insertion of only a few nuclear weapons into the United States might be an effective counter-threat. More importantly, within the most critical of such asymmetric regional confrontations--between Pakistan and India; a weaker Arab country and Israel, or under some assumptions the converse; North Korea and South Korea; and/or Iraq and Iran--provision of surrogate capabilities probably would mean American action to deter or to respond to nuclear-weapon use by a Soviet or PRC friend, ally, or client. That would pose the threat of a superpower confrontation. Further, there would be at least some danger of the host nation using the weapons in an unauthorized manner. The "keys" are cryptographic in nature. It would not be surprising if the recipient, after gaining

experience in how the two-key system worked, was able to discover how to unlock the weapons without authorization. Or, it might simply seize them in order to acquire the fissile material they contain for then fabricating its own weapons.

However, this discussion of two-key systems may be only of limited applicability. There appear few nations where the United States eventually might be willing to deploy two-key systems. Protecting the weapons and preserving its key probably would require deployment of a significant number of American troops. Given the foreseeable near-term political climate within the United States--as indicated by the Congressional debate over stationing of American civilian technicians in the Middle East--there might not be sufficient support for so deploying American forces into new areas.

American Disengagement from Nuclearized Regions?

The preceding discussion, while stressing the political impediments to American efforts to provide a surrogate second-strike capability, assumed the desirability of such efforts to reduce regional instability. But it could be that a more prudent course of American action would be to put political distance between the United States and new proliferators with the means to make and execute independent decisions on the use of nuclear weapons. That is, a policy animated not by considerations of managing local instability but by the dictates of managing in a proliferated world might require political and military disengagement from latent and active nuclearized regional confrontations.

But to do so could entail the sacrifice of other important domestic, foreign, and national security interest. Disengagement from a nuclearized Middle East, for example, might give the Soviets a free hand in the region. And, such disengagement might not be politically feasible, given the existence of strong domestic American support for Israel. Even within a Western Europe which included the emergence of a nuclear-armed West Germany, a continued if modified American connection might be a necessary buttress of these countries' political resolve. Or, to pull back from the Persian Gulf, assuming eventual Iranian access to nuclear weapons, might jeopardize access to necessary Saudi Arabian and other Arab oil.

Taking these sorts of American interests into account, indiscriminate disengagement from newly nuclearized regions would appear to be too costly a strategy. Instead, it first may be prudent for the United States in a proliferated world to distinguish more carefully its "vital" interests--those warranting acceptance of the risk of confrontation with the Soviet Union or the PRC and that of entanglement in a local nuclear

war--from other lesser interests. Having done so, the United States in those situations then might accept the risks of continued or strengthened efforts to support a structure of regional order even in the presence of nuclear forces. At the same time, nonetheless, efforts to reduce the threat that hostile new nuclear-weapon states in such regions could pose directly to the United States--as discussed later--also would be required.

Support for Regional Arms Control

American supported regional arms control initiatives and agreements also should be considered briefly. Such agreements might make an important contribution to increased regional stability in a proliferated world. To begin, as suggested earlier, some Nth countries, including partially competitive ones such as Argentina and Brazil, might be content with only small "in the business" nuclear-weapon programs for prestige purposes. In such cases, verifiable force size agreements could serve both sides' interests, dampening pressures for arms racing stemming from uncertainties about an opponent's capabilities and long-term intentions.

Another possibility would entail establishment of crisis communication links--"mini hotlines"--supported, perhaps, by the transfer of the necessary advanced technology from the United States or the Soviet Union. Granting the risk that such a system could be manipulated to deceive an opponent, under some conditions it could facilitate both conflict avoidance and conflict termination.

On the one hand, should unauthorized, accidental, or anonymous non-governmental nuclear-weapon use occur, a capacity for rapid and reliable communication might be an especially helpful adjunct to other measures for avoiding an inadvertent or catalytic Nth country nuclear exchange. On the other, it would permit continued communication and negotiation during a conflict, both potentially essential to conflict termination short of eruption to all-out nuclear exchanges--assuming, that is, that both sides' war plans and capabilities allowed for more limited nuclear-weapon options.

Finally, even though the hope that the SALT talks would be a forum for mutual Soviet-American "strategic education" appears to have been only partly fulfilled at best, arms control talks, perhaps with outside observers, might perform more successfully such an educational function within regional nuclear situations. The United States could encourage and support the convening of such talks.

d. Superpower Rules of Engagement
in Local Conflicts

Among the potential global repercussions of local proliferation would be superpower crises, confrontations, and perhaps even conflict erupting out of their entanglement on opposing sides of local nuclear confrontations. That is, as Hudson's earlier study concluded, the risk of spreading conflict is likely to characterize many of the most probable future core confrontations. Moreover, even assuming some degree of superpower disengagement along the lines just discussed, in many cases that threat of superpower confrontation still would exist. Further, should either superpower unilaterally undertake to provide surrogate second-strike capabilities to weaker nuclear or non-nuclear nations, that could increase the threat. This is so because within the most important bilateral regional confrontations--between, for example, Pakistan and India; a weaker Arab country and Israel, or under some conditions the converse; North and South Korea; and/or Iraq and Iran--that assistance would entail action by one superpower to deter or respond to nuclear-weapon use by a friend, ally, or client of the other.

This risk of widening conflict within a proliferated world points to the need for superpower rules of engagement in local conflicts. Most of the obstacles to Soviet-American agreement upon such rules already have been noted in discussing the prospect of a code of nuclear behavior for a proliferated world. To reiterate, as long as either or both the Soviets and the United States continued to place a higher value upon their on-going global competition, support of local friends and allies, and pursuit of particular foreign and national security objectives even within newly-nuclearized regions than upon managing the risks of a proliferated world, the likelihood of meaningful agreement would be severely limited.

In addition, relevant past experience is far from promising. In June 1973 the "Agreement between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War" was signed. As viewed by the United States, its objective was to reduce the likelihood of either side's taking actions that could result in a direct clash of arms between the two superpowers. But in Soviet eyes, apparently, ratification in no sense limited their freedom of action to support national liberation movements--as in Angola--within the Third World. Nor, as evidenced by the threat of Soviet intervention in the Middle East War of 1973, as well as by their supply of arms both to Egypt before its surprise attack in that war and to North Vietnam before its final conventional assault upon South

Vietnam, did that agreement imply a lessened pursuit of Soviet foreign policy objectives in critical arenas of East-West tension and potential conflict.

Notwithstanding such obstacles to agreement, for several reasons it may become useful to think about a range of possible superpower rules of engagement for a proliferated world.* First, after a future dramatic shock, the obstacles to agreement and implementation of more restrictive rules might become less intractable. Moreover, even within the limits set by those obstacles, limited agreements to strengthen ad hoc crisis management procedures may be possible. Third, eventual discussion in appropriate forums of rules of engagement with the Soviets might foster movement either towards a shared perception of the risks, flash-points, and traps of entanglement in newly-nuclearized regions or at least a better understanding by each side of the other's evaluation of those factors.

By way of illustration, a range of possible rules might include: joint and several management, post-first-use decoupling, last-resort-only intervention, and continuous crisis-management communication and cooperation. Each warrants brief description.

Joint and several management--restating the basic principle of the previously examined code of nuclear behavior--would entail actions by either the Soviet Union or the United States, or both, to deter regional nuclear-weapon use, or, barring that, to respond proportionately after first-use. If credibly conveyed, it might be able to deter the eruption of local nuclear conflicts or at least minimize the broader disruptive impact of nuclear-weapon use.

Post-first-use mutual decoupling would imply the legitimacy of support for favored parties up to the point where one or the other local disputant used nuclear weapons. At that point, both superpowers would stand aside and let the local nuclear powers fight it out by themselves. Adoption and implementation of this rule would presuppose superpower agreement that once the nuclear threshold had been crossed--even by a favored friend, ally, or client--their interest in not being dragged into a local nuclear war outweighed continued pursuit of whatever other interest they had within the region.

Another rule might be intervention only if the survival of a favored friend, ally, or client was at stake. Under such a rule, threats of

* In considering when to begin focusing upon this problem, it is worth noting that the risk of spreading conflict could emerge even in the early stages of more widespread proliferation.

nuclear reprisals to deter city-busting attacks by the ally's opponent would be permitted, as would threats of intervention to prevent his complete conventional defeat and territorial demise. Short of that last resort support, however, entanglement in local conflicts would be avoided.

Finally, as at present, it could be agreed in general terms to maintain a continuous communication link during a local conflict, to explain the significance of whatever political and military moves were undertaken, and to cooperate in avoiding escalation to a superpower clash of arms. Though limited, such a rule of engagement could stimulate increased thinking about and awareness of potential danger points by both sides. It also might lead each to be more careful about ensuring that the other side would not misinterpret whatever actions were being taken.

Thus, circumscribing the global repercussions of local proliferation would include superpower agreement upon these or comparable rules of engagement in local disputes. But it has to be acknowledged that at least initially both superpowers probably would continue to pursue their individual foreign and national security objectives even within newly-nuclearized regions. They would decide for themselves how much risk to run and rely upon ad hoc crisis management to limit that risk. Only after a dramatic shock, if then, might more restricting rules of engagement be thought about seriously. However, both to be able to take advantage of such an event and to try to achieve a shared perception of the problem, if a second phase of proliferation begins, it then may be desirable to place these issues on the agenda of Soviet-American arms control negotiations.

e. Controlling Nuclear Terrorism

As Hudson's earlier report concluded, another global repercussion of widespread nuclear proliferation would be the probable access to and potential use of nuclear weapons by sub-national domestic dissident groups, radical political movements, and terrorist organizations. Before considering possible responses to this threat, it is useful to reiterate briefly why such potential nuclear terrorism is not an imaginary problem.

Dimensions of Terrorist Nuclear-Weapon Use

A sub-national group might obtain a nuclear weapon in a variety of ways. Should plutonium recycling be adopted widely in the 1980s, physical security measures might not suffice to prevent the theft of fissile material with which such a group might be able to fabricate

its own device, alone or with various types of assistance especially if "black or gray marketeering" develops. Moreover, assuming widespread proliferation, the opportunities for stealing a nuclear weapon would increase. In part, this is because the chances of a physical security lapse probably would rise in proportion to the expanded number of prospective targets. But it also results from the likelihood, discussed previously, that for political and technical reasons tight control over the nuclear arsenal in at least some new proliferators would be lacking. Furthermore, in some situations--the Middle East again comes to mind--lesser level military men or a government itself could conspire to allow a terrorist group to "steal" a weapon, believing that ultimately would serve their own purposes. Finally, the emergence of nuclear "black or gray marketeering" partly characterized by the sale of special nuclear materials, if not nuclear weapons themselves, would provide another potential source of supply.

Perhaps more importantly, it cannot be assumed that a radical dissident group or terrorist organization would have no "rational" motive for using a nuclear weapon against the United States, the Soviet Union, or another industrialized country, let alone locally.* Within the Middle East, for example, a successor to the PLO might come to believe that use against Israel was the only way to block a peace settlement damaging to Palestinian interests. Alternatively, a radical Arab terrorist group in possession of nuclear weapons could seek to use them to coerce the United States, perhaps by threatening to detonate in an American city a clandestinely-inserted bomb, into discontinuing its support of Israel. Nor, as noted earlier, need the target be the United States; such coercion could be used for similar reasons against American NATO allies.

Moreover, there is little reason to believe that for terrorist groups such as the Japanese Red Army or successors to the Baader-Meinhof Gang that view their objective as destroying bourgeois society nuclear terrorism would not be regarded as a suitable means. Nor can the prospect that a sufficiently desperate dissident or nihilist faction might spring up even within the Soviet Union and be willing to resort to nuclear terror be precluded totally.

Thus, a significant risk exists that widespread proliferation could be accompanied by the use of nuclear weapons by sub-national dissident groups or terrorist factions. Although the level of destruction that might result from such use could vary, suffice it to note that a single unexpected terrorist detonation of a nominal-yield fission weapon within

*For elaboration see Dunn and Kahn, pp. 117-118, 130.

a Middle Eastern, American, Soviet, or Western European city might kill upwards of 100,000 people.

No-Safe-Haven for Nuclear Terrorists

Policies to reduce the global risk of nuclear terrorism, increased by the regional spread of nuclear weapons, therefore, also would be necessary components of a management strategy. One approach, represented by steps to increase the physical safety of fissile materials and shipments and to control more tightly nuclear weapons--would focus upon how a terrorist organization could acquire a nuclear-explosive device and devise measures to reduce its chances of doing so. A second, parallel approach would concentrate on the nuclear terrorists themselves. For this, a possible principle of action might be that of no-safe-haven for nuclear terrorists.

At one level, that principle could entail diplomatic efforts to reach agreement upon an international nuclear terrorism convention. By separating out and stressing the use of nuclear weapons, it might be possible to circumvent irresolvable political debate about what constituted "terrorism." Past experience, nonetheless, suggests that some governments would not agree to hand over even nuclear terrorists.

Therefore, a "no-safe-haven" policy also might have to encompass an American readiness, at least following terrorist use against the United States, to hold other governments responsible for the actions of nuclear terrorists operating from their territory or given refuge therein.* The threat of retaliation--perhaps the selective destruction of high-value targets using precision-guided conventional weaponry--against a radical country that had harbored the perpetrators of a nuclear terrorist incident could encourage such countries to control those activities in their early stages. Alternatively, comparable coercive military measures could be used in an attempt to induce a radical government to hand over members of a nuclear terrorist group.

Finally, anti-nuclear terrorist activity legitimately might demand creation of special-purpose multi-nation "gray organizations" to hunt down nuclear terrorists without regard to national boundaries--much as the French government's "barbouzes" hunted down and kidnapped Secret

* Such actions eventually could come under the rubric of a code of nuclear behavior for a proliferated world. In that case, the Soviets and the United States would act not simply in response to nuclear terrorist attacks upon their own territories but against all such nuclear use.

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Army Organization leaders during the early 1960s terrorist campaign to prevent a French grant of independence to Algeria. At this point, however, a threat to liberal procedural norms could emerge. Nonetheless, it might be less dangerous to create an adequately supervised special organization to engage in activities possibly suspect according to traditional norms than to risk contamination of regular police agencies and the carry-over of practices from anti-nuclear-terrorist activity into the general criminal enforcement realm.

Nuclear terrorism has to be taken seriously as a potential threat within a proliferated world. In fact, under some conditions it could begin to emerge even when the scope of proliferation remained relatively limited. A combination of efforts to reduce terrorist access to nuclear weapons or their critical components and to deal directly with the terrorists themselves and their abettors would represent one means of controlling this threat.

f. Implications for American Force Posture

Both specific politico-military threats within a proliferated world and the need for insurance against an uncertain and dangerous environment would have implications for future American force posture requirements. Although a detailed discussion of those implications and of the types of military capabilities that could be required for managing in that world is beyond the scope of this report, several of the most important possibilities should be sketched briefly. The basic principle in each case is that of reducing the capability of future proliferators to threaten the American homeland and American interests abroad, including the interest in reducing the potential disorder of a proliferated world.

Non-Nuclear Precision Strike Capability

This would entail development of a tous azimuts capability to carry out precise, non-nuclear strikes against high-value civilian and military targets within new proliferators. Utilizing either precision-guided munitions or perhaps terminally-guided cruise missiles, such a capability could allow the United States--without causing high collateral damage--to destroy such targets as nuclear-weapon production and testing facilities; plutonium reprocessing and uranium enrichment plants; other key industrial facilities; political control centers, including, for example, secret police headquarters; key conventional military installations; and

possibly the country's nuclear force itself. Acquisition of a tous azimuts capability for such precise strikes might prove useful in various ways.

With such a capability non-nuclear high-value strikes of varying dimensions could be undertaken, for example, in response to a new proliferator's decision to engage in either "gray market" sale of nuclear weapons or fissile material or their direct transfer to a non-national terrorist group; to punish an unsuccessful Nth country attempt to carry-out an anonymous attack against the United States; in accord with the principle of no-safe-haven for nuclear terrorists, either to force a country to hand over terrorists or as punishment for aiding and abetting them; or perhaps following seizure of power and their country's nuclear arsenal by a group of radical fanatic coup-makers. Other examples could be supplied. Each would suggest the advantages of possessing a capability for selective non-nuclear coercive, disarming or punitive strikes against future proliferators who might be tempted to engage in highly disruptive actions.

Damage-Limiting Systems and Capabilities

Table 11, p. 82, depicted a world in which upwards of forty countries have acquired nuclear weapons. More importantly, if they "go nuclear," some of these countries are likely by the 1990s to have developed nuclear forces capable of attacking targets within the United States. Both Brazil and Iran, emerging as regional powers and perhaps seeking a local hegemony at odds with American interests, are examples. So could be a violently anti-American Japan, having "gone nuclear" in the late 1980s after an American-induced security shock and reverting to earlier militaristic self-assertiveness. Further, within such a world nuclear weapons probably would be in the hands of at least some non-national groups. That, too, would pose the prospect of nuclear destruction within the United States. Both these specific threats and the general interest in insuring against an uncertain but hostile environment--one in which what has been termed bizarre events must be expected--point to the desirability of American acquisition of damage-limiting systems or capabilities for a proliferated world. These would include preservation to the extent possible of a disarming first-strike capability vis-a-vis new nuclear weapons states as well as active and passive defenses.

First, even though the main external determinant of American strategic force requirements and posture in a proliferated world would remain Soviet capabilities and intentions, consideration also might be given to preserving an asymmetric strategic capability vis-a-vis potentially hostile new nuclear-weapon states. That is, possession of a

preclusive first-strike disarming capability against weaker Nth countries could be a valuable asset in some scenarios. To preserve that advantage against, for example, a nuclear-armed but now possibly hostile Iran or Brazil might warrant, if necessary, marginally increased investment in both strategic offensive forces and other preemptive capabilities. In addition to anti-submarine warfare (ASW) systems, the latter could include an ability to detect, track, and destroy surface-based nuclear forces--Nth country versions of the MLF--that ventured into a previously proscribed ocean-security zone.

Second, procurement of active defenses, sufficient to absorb not only an accidental or unauthorized salvo by a new nuclear-weapon state, but also a small purposive strike, would warrant serious consideration.* This is so even granting that such a purposive strike probably would be irrational in view of the likely counter-retaliation.

Without such a defense, for example, the United States might be less ready to protect its interests in the Persian Gulf should a militaristic, nuclear-armed Iran decide to move south against Saudi Arabian oil fields.** Or, should agreement to implement the previously described code of nuclear behavior result after one or more early 1990s small-power nuclear wars, such a defense capability would be a necessary adjunct. It would provide a shield behind which to carry out proportional nuclear reprisals without fear of retaliation by the violator's nuclear force. More generally, even in the absence of high probability threat-scenarios for attack by specific new nuclear-weapon states, insuring against unexpected international political changes which might foster such threats could dictate not allowing these nuclear forces a free ride into the American homeland.***

Third, some city evacuation capability also could prove valuable. Granted the danger of societal disruption in the event of purposive

* Means of protecting against other types of attack, e.g., clandestine insertion, are discussed below.

** Comparable considerations could be at work in the cases of a nuclear-armed and expansionist Brazil or Japan.

*** As Hudson's earlier report noted, even if the United States does not want to invest in such a light ABM system, the Soviets may feel compelled to do so. Many of the most likely future proliferators in this posited world of widespread proliferation would target the Soviet Union. The issue of ABM, thus, may come up regardless of American policy initiatives.

deception or hoaxes which triggered evacuation, such a capability, nonetheless, would defuse the threats of nuclear terrorism and anonymous but pre-announced nuclear attack. And, as proposed earlier, both threats have to be taken seriously. In fact, should the threat of clandestine nuclear attack prove both sufficiently serious and unmanageable by this and other means, some consideration even may have to be given to dispersing population and industry as a means of reducing potential damage.*

Real-Time Surveillance Systems

Within a proliferated world, it also might become desirable to develop a capability for real-time ocean and air-space surveillance. A satellite-based, computer-linked ocean surveillance system could serve to track sea-going surface nuclear forces--those latter-day Nth country versions of the MLF mentioned above--and allow the United States to enforce a rule of non-access to ocean areas in range of American targets. Similarly, to reduce the likelihood of successful clandestine insertion by air of one or more nuclear weapons during a U.S.-Nth country stand-off, an AWACS-type system to monitor penetration of American air space combined with the temporary banning of private flying in and out of selected regions of the United States might be necessary.

As with the damage-limiting systems, the basic principle of American policy would be to reduce the potential direct threat to the American homeland posed by new nuclear-weapon states, raising as high as possible the threshold for acquiring a militarily significant nuclear capability vis-a-vis the United States.

g. Towards a Code of Nuclear Behavior

The measures discussed in this section (summarized on Table 19) might serve to slow the growth of global disorder within a proliferated world while reducing that world's threat to the United States. Several of them--including efforts to agree upon rules of engagement,

* In addition to such damage-limiting systems, direct attack upon the United States by new nuclear-weapon states could be discouraged by a declaratory policy which suggested that, if attacked successfully, the American response would be immediate and wholly disproportionate to the damage inflicted. This would require changing the code of nuclear behavior discussed earlier to state that principle of "an eye for an eye" would be held applicable only to surrogate responses to first use not against the United States.

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implementation of the no-safe-haven for nuclear terrorists, and American acquisition of damage-limiting systems--also could provide a partial basis for later movement towards a code of nuclear behavior such as that discussed earlier.

One additional step toward such a code deserves mention. Even though Soviet-American agreement upon the proscription of nuclear first-use appears unlikely in the absence of a dramatic shock, agreement upon certain less comprehensive norms might be possible. Both superpowers might find it in their interest to agree that nuclear terrorism, the sale of nuclear weapons or fissile material, an attempt to trigger a nuclear war between them, or government-to-government "gray market" technical assistance for developing nuclear weapons all constituted proscribed behavior in a proliferated world and were to be vigorously opposed. A joint effort to enforce that proscription then might provide a framework out of which would develop a more far-reaching code of nuclear behavior.

Table 14
A STRATEGY FOR
MANAGING IN A PROLIFERATED WORLD

A. A CODE OF NUCLEAR BEHAVIOR

B. MORE LIMITED TACTICS

1. INFLUENCING THE TECHNICAL CHARACTERISTICS OF NEW NUCLEAR FORCES
2. SHAPING NTH COUNTRY STRATEGIC DOCTRINE
3. CONTRIBUTING TO REGIONAL STABILITY
 - a. PROVIDING SURROGATE SECOND-STRIKE CAPABILITIES VS. AMERICAN DISENGAGEMENT FROM NUCLEARIZED REGIONS
 - b. REGIONAL ARMS CONTROL
4. ALTERNATIVE SUPERPOWER RULES OF ENGAGEMENT IN LOCAL CONFLICTS
 - a. JOINT AND SEVERAL MANAGEMENT
 - b. POST-FIRST-USE DECOUPLING
 - c. LAST-RESORT-ONLY INTERVENTION
 - d. CRISIS-MANAGEMENT COOPERATION
5. CONTROLLING NUCLEAR TERRORISM
 - a. PREVENTING TERRORIST ACCESS TO FISSILE MATERIAL AND NUCLEAR WEAPONS
 - b. NO-SAFE-HAVEN FOR NUCLEAR TERRORISTS
6. AMERICAN FORCE POSTURE IMPLICATIONS
 - a. NON-NUCLEAR PRECISION STRIKE CAPABILITY
 - b. DAMAGE-LIMITING SYSTEMS
 - c. REAL-TIME SURVEILLANCE SYSTEMS
7. PRECURSORS TO A CODE OF NUCLEAR BEHAVIOR

Conclusion: Managing in a
Proliferating World

To go beyond such limited contingency planning for a proliferated world, as represented by the preceding Part, probably would be premature.* It perhaps even might be damaging to those renewed non-proliferation efforts whose necessity is demonstrated by the very difficulties of devising a high-confidence proliferation-management strategy. Instead, however, it is becoming increasingly necessary to think about managing in a proliferating world. That is, appropriate American policy must be developed for a world in which a growing number of countries are acquiring nuclear-weapon mobilization bases, in which pressures to acquire nuclear weapons may be mounting, and in which the occurrence of dramatic proliferation events can be expected.

Two lines of action are indicated. On the one hand, increased efforts as discussed above to strengthen non-proliferation policies by increasing constraints and defusing pressures are needed. On the other, prior thinking about responses to possible future dramatic proliferation events, in order to be prepared to take advantage of the opportunity that they may provide for implementing key non-proliferation measures, while limiting their potential disruptiveness, equally is necessary. With both, the likelihood of widespread proliferation could be reduced significantly, and the problems of managing in a more proliferated world, should it emerge despite those efforts, made less intractable.

* Some continued contingency planning may be required, nonetheless, because several of the more dangerous problems of a proliferated world--e.g., the threats of inadvertent nuclear war or of nuclear terrorism--could emerge in the early stages of additional proliferation.